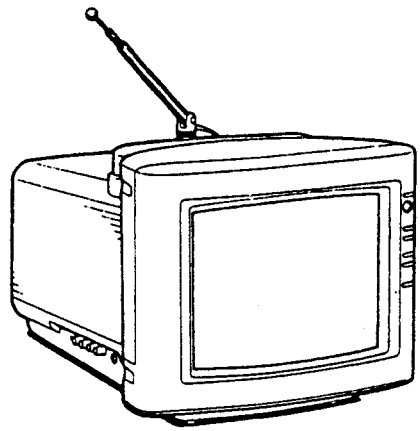
KV-9MD1
RM-827S

SERVICE MANUAL

E Model
Chassis No. SCC-G33A-A



NW CHASSIS

MODELS OF THE SAME SERIES	
KV-9MD1	

SPECIFICATIONS

Color system PAL, PAL60, NTSC4.43, NTSC3.58, SECAM
Television system and Channel coverage

Television system	M	B/G	I	D/K
Low VHF band	A2-A6	E2-E4	–	R1-R5
High VHF band	A7-A13	E5-E12	–	R6-R12
UHF	A14-A79	E21-E69	B21-B68	R21-R60
CATV	–	S01-S03 S1-S20	–	–

Picture tube Trinitron tube
9-inch picture tube measured diagonally
70-degree deflection
Antenna VHF/UHF telescopic antenna
Speaker 77mm round (3 1/8 inches)
Input Antenna: 75 ohms
VIDEO INPUT jacks: phono jacks
Video: 1 Vp-p, 75 ohms
Audio: 500 mVrms, high impedance
Output Earphone jack
Power requirements
110–240 V AC, 50/60 Hz
12/24 V DC
Power consumption
AC IN: 33W max.
DC IN: 33W max.

Dimensions Approx. 239 × 197 × 310 mm (w/h/d)
(9 1/2 × 7 7/8 × 12 1/4 inches)
Mass Approx. 5.2 kg (11 lb 7 oz)
Accessories supplied
Remote Commander RM-827S with 2 size AA (R6) batteries (1)
AC power cord (1)
Car battery cord DCC-17AW(1)
Telescopic antenna (1)
Optional accessory
Connecting cord VMC-920MS

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV
SONY®

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CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

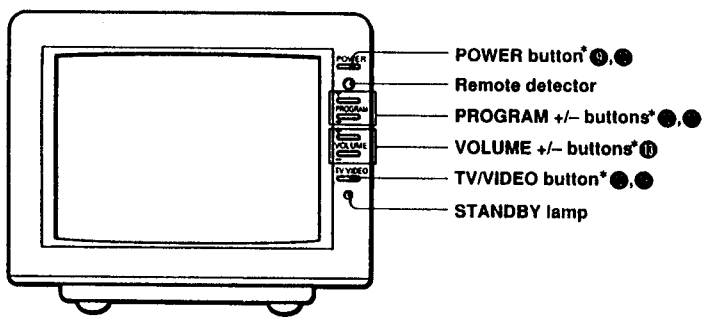
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

Identifying the Parts

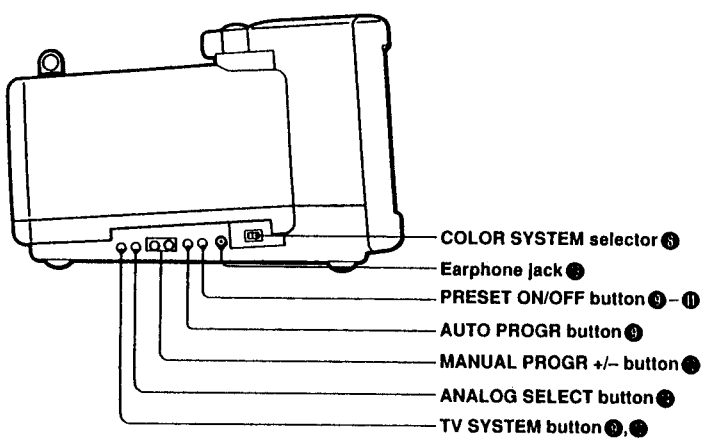
Front

For details, refer to the pages indicated by the numbered black circles ●



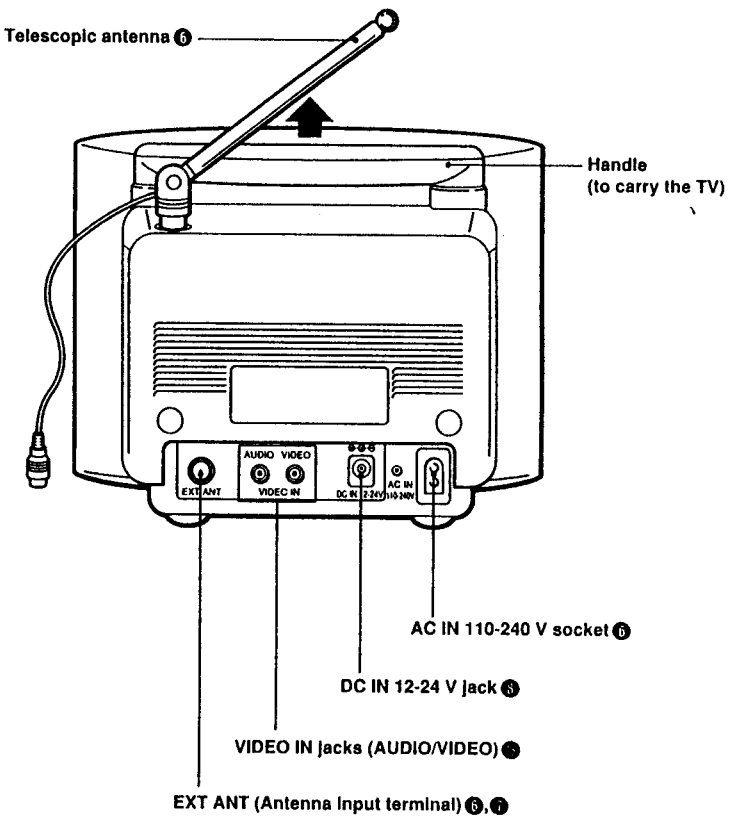
* The same function buttons are also located on the Remote Commander (p.5).

Left Side

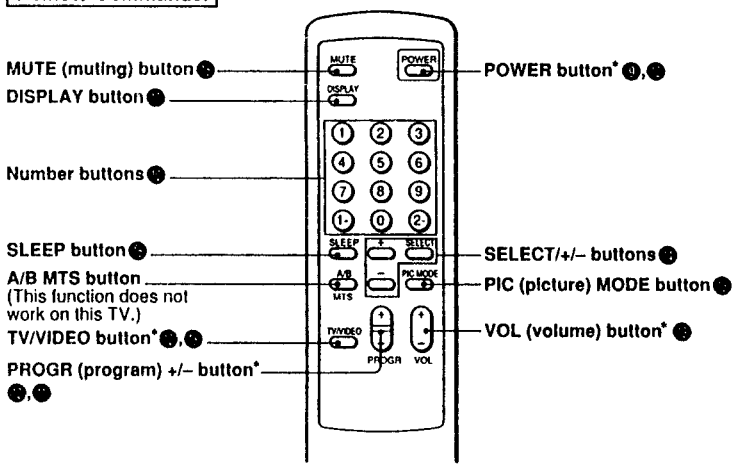

COLOR SYSTEM selector ⑧
Earphone jack ●
PRESET ON/OFF button ⑨–⑪
AUTO PROGR button ⑨
MANUAL PROGR +/– button ●
ANALOG SELECT button ●
TV SYSTEM button ⑧,●

Identifying the Parts

Rear



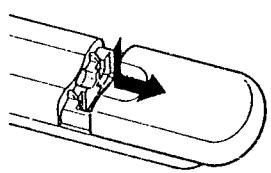
Remote Commander



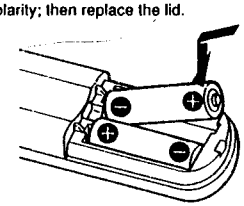
* The same name function buttons are also located on the TV (p.3).

Installing Batteries

1 Remove the battery compartment cover.



2 Insert two size AA (R6) batteries in correct polarity; then replace the lid.

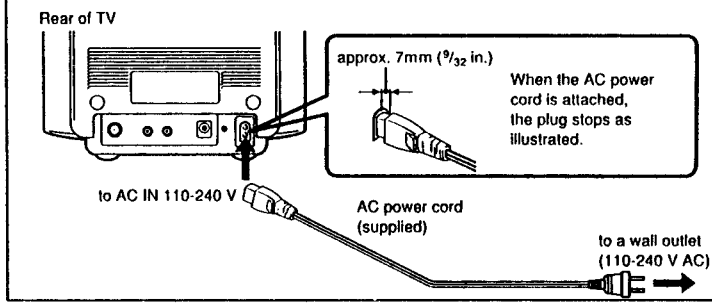


Notes

- In normal operation, batteries will last up to half a year. If the TV does not operate properly, the batteries might be exhausted. Replace all with new ones.
- To avoid damage from possible battery leakage, remove the batteries for extended unused periods.
- Be sure that there are no obstructions between the Remote Commander and the TV.
- Operable range is limited.
- If a Remote Commander not recommended is used to operate this TV, or if the supplied Remote Commander is used to operate another TV, the TV may not operate properly.

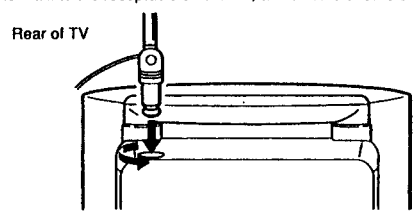
Preparing for Use

Using House Current

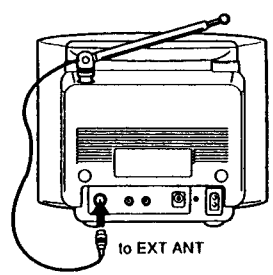

Rear of TV
approx. 7mm (9/32 in.)
When the AC power cord is attached, the plug stops as illustrated.
to AC IN 110-240 V
AC power cord (supplied)
to a wall outlet (110-240 V AC)

Connecting the Supplied Telescopic Antenna

1 Insert the antenna into the receptacle on the TV, and twist to ensure a secure fit.



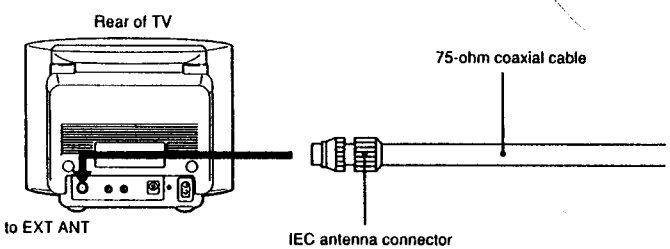
2 Attach the antenna connector to the EXT ANT terminal.



Using a VHF, UHF or combination VHF/UHF Antenna

1 Attach the antenna end to an IEC antenna connector (commercially available).

2 Plug the connector into the EXT ANT terminal on the TV.

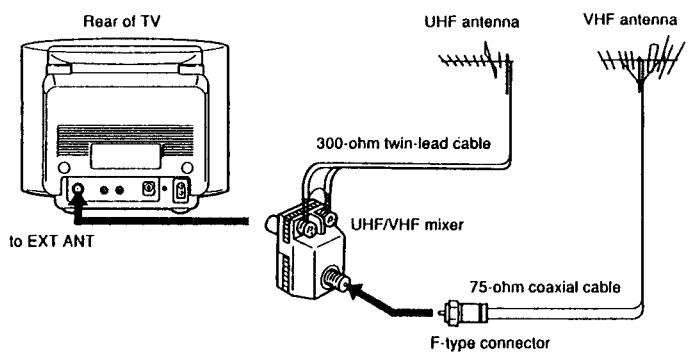


Connecting Both VHF and UHF Antennas

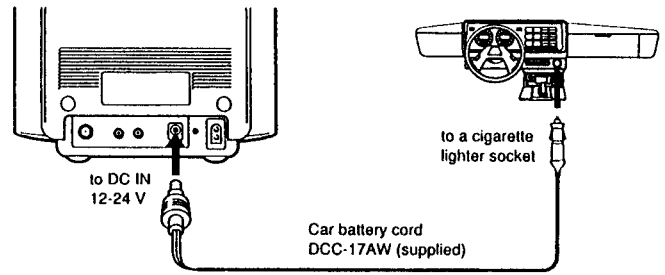
Use the UHF/VHF mixer (not supplied).

1 Attach the antenna ends to a UHF/VHF mixer.

2 Plug the mixer into the EXT ANT terminal on the TV.

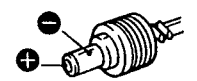


Using a Car Battery

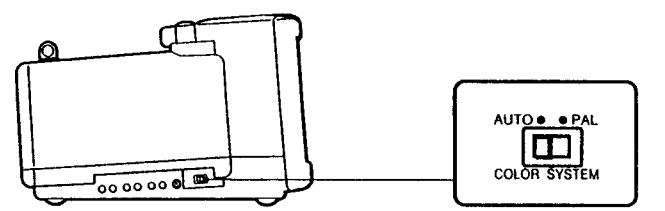


Notes

- For car use, the TV is designed for negative ground 12-24 V DC operation only.
- Use only the supplied car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.
- When you aren't using the TV, remove the car battery cord from the cigarette lighter socket.

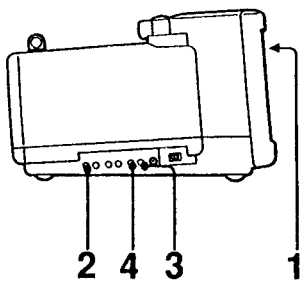


Setting COLOR SYSTEM



Normally set COLOR SYSTEM to AUTO.
If the color reproduction is abnormal (for example, the picture turns red or blue) while receiving PAL and PAL 60 playback signal, set to PAL. The picture color will become normal.

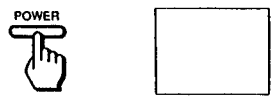
Presetting TV Channels



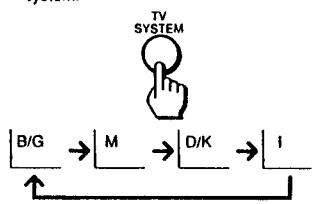
Presetting TV Channels Automatically

Up to 30 channels (1 to 29, 0) can be preset in numerical sequence from program number 1.

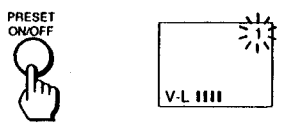
1 Press POWER.



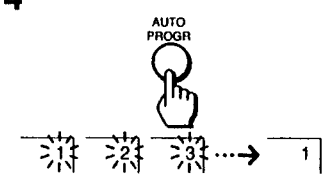
2 Press TV SYSTEM to select your local TV system.

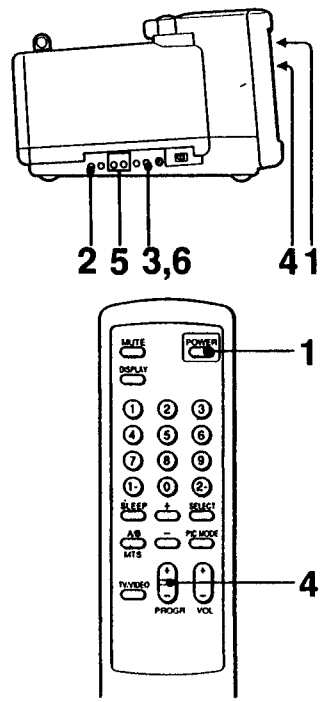


3 Press PRESET ON/OFF.



4 Press AUTO PROGR.





Presetting TV Channels Manually

To change the program number for a channel, or to receive a channel of weak signal, preset the channel manually.

Example: To preset a channel in program number 8

1 Press POWER.

2 Press TV SYSTEM to select your TV system.

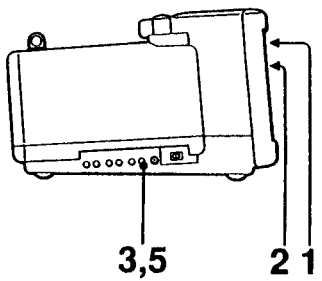
3 Press PRESET ON/OFF.

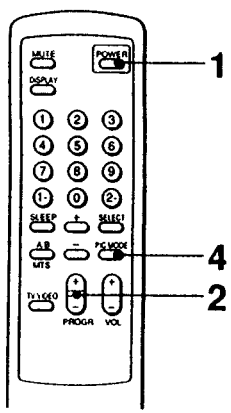
4 Press PROGRAM +/– on the TV or PROGR +/– on the Remote Commander until "8" appears.

5 Press MANUAL PROGR +/– until the channel you want appears.

6 Press PRESET ON/OFF.

To preset other channels, repeat steps 2 through 6.





Skipping Program Positions

You can skip the unused or undesired program position when you are selecting a program using the PROGRAM +/– on the TV or PROGR +/– on the Remote Commander.

Example: To skip the program position 8

1 Press POWER.

2 Press PROGRAM +/– or PROGR +/– until "8" appears.

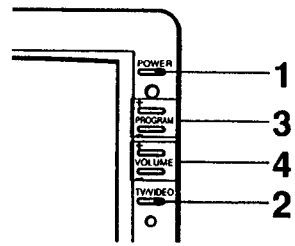
3 Press PRESET ON/OFF.

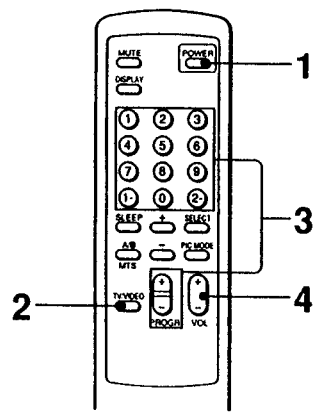
4 Press PIC MODE on the Remote Commander.
Repeat steps 2 through 4 to skip other program position.

5 Press PRESET ON/OFF.

To restore the skipped program position
Preset the station manually as described in "Presetting TV Channels Manually", or preset automatically again.

Watching TV Programs





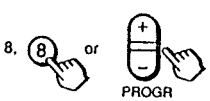
1 Press POWER to turn the TV on.

2 Press TV/VIDEO to select TV mode.

3 Press PROGRAM +/– on the TV, or the number button(s) or PROGR +/– on the Remote Commander.

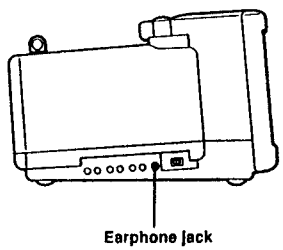
On the TV

On the Remote Commander

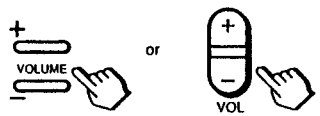
To select 8,  or

To select 10,

To select 25,



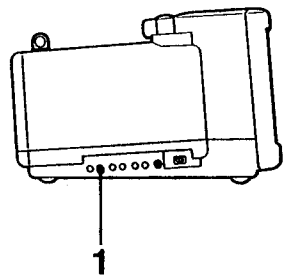
4 Press VOLUME +/– on the TV or VOL +/– on the Remote Commander to adjust the volume.

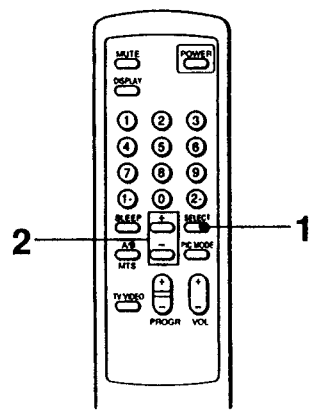


To set the TV to standby mode
Press POWER.

Listening through an earphone
You can listen to the TV's sound through an optional earphone connected to an earphone jack.

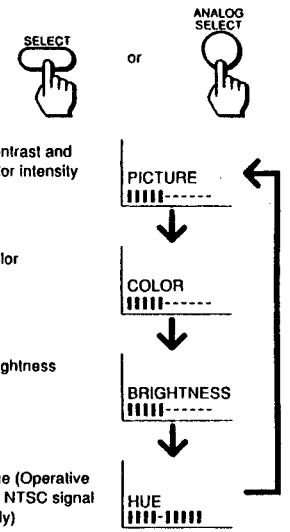
Adjusting Picture



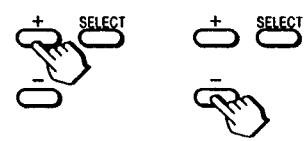


Adjusting the Picture to Your Preference

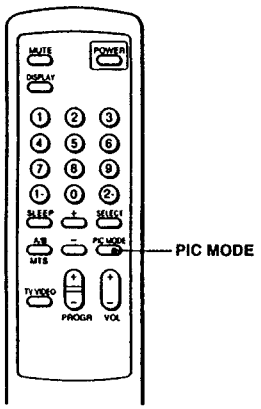
1 Select the adjustment item using ANALOG SELECT on the TV or SELECT on the Remote Commander. Each time you press SELECT, the item is changed in sequence as follows.



2 Adjust using the + and – buttons on the Remote Commander.

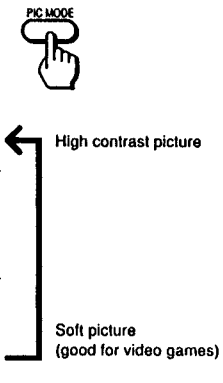


Note
If you change the PIC MODE setting (p.15) after the above adjustments, the adjustment changes in accordance with the PIC MODE setting.

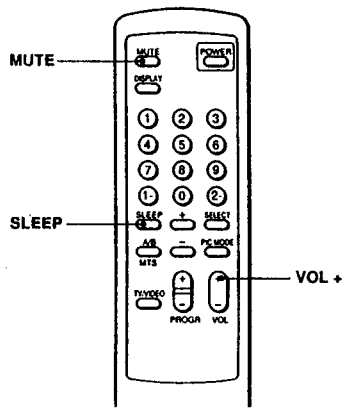


Selecting the Picture Mode

Press PIC MODE button on the Remote Commander.

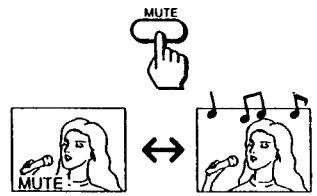


Using Other Convenient Features



Muting the Sound

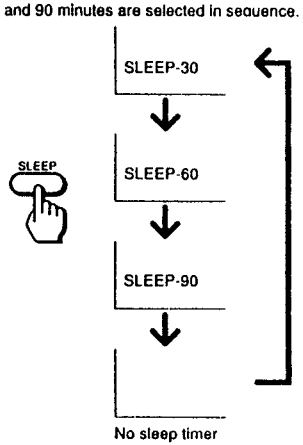
Press MUTE to mute the TV sound.



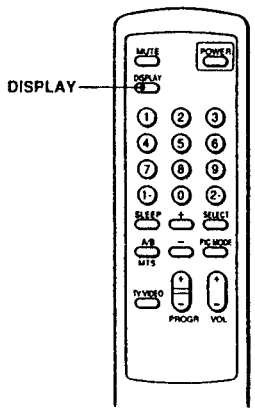
To turn muting off
Press MUTE again, or VOL +.

Setting the Sleep Timer

Press SLEEP to set the TV so that the power is turned off automatically at a preset time. Each time you press SLEEP, the time increments 30, 60 and 90 minutes are selected in sequence.

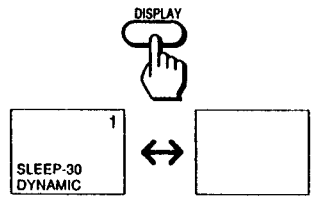


To cancel the sleep timer
Press SLEEP until the sleep indication disappers.



Displaying the Input Mode

Press DISPLAY. The current input modes will be displayed on the screen.

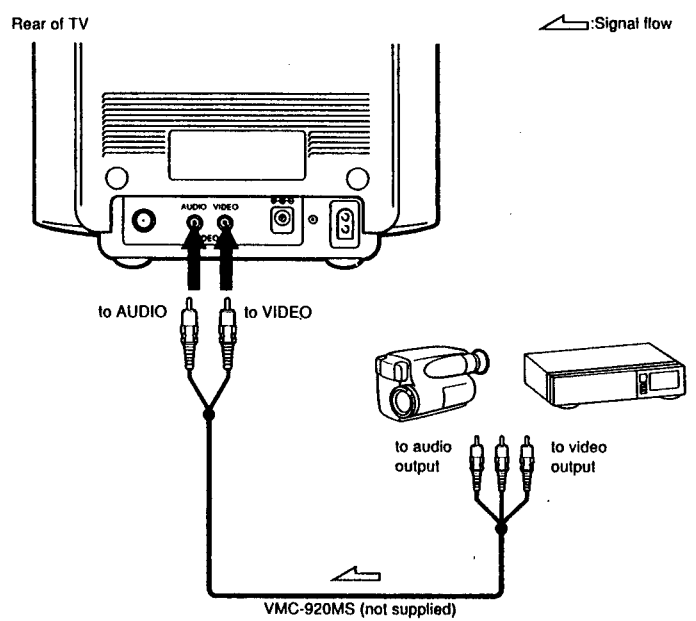


To turn the display off
Press DISPLAY again.

Connecting Video Equipment

Connecting a VCR or 8mm Video Camera

Before connecting, turn off the power on all equipment.



Watching a VCR Picture

1 Turn on the TV.

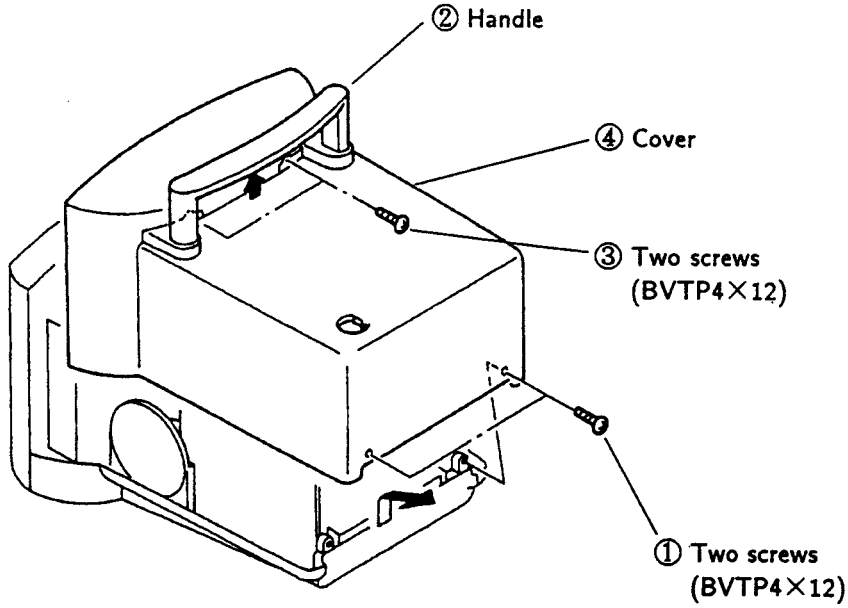
2 Press TV/VIDEO so that "VIDEO" appears on the screen.

To return to TV mode
Press TV/VIDEO so that a channel number appears on the screen.

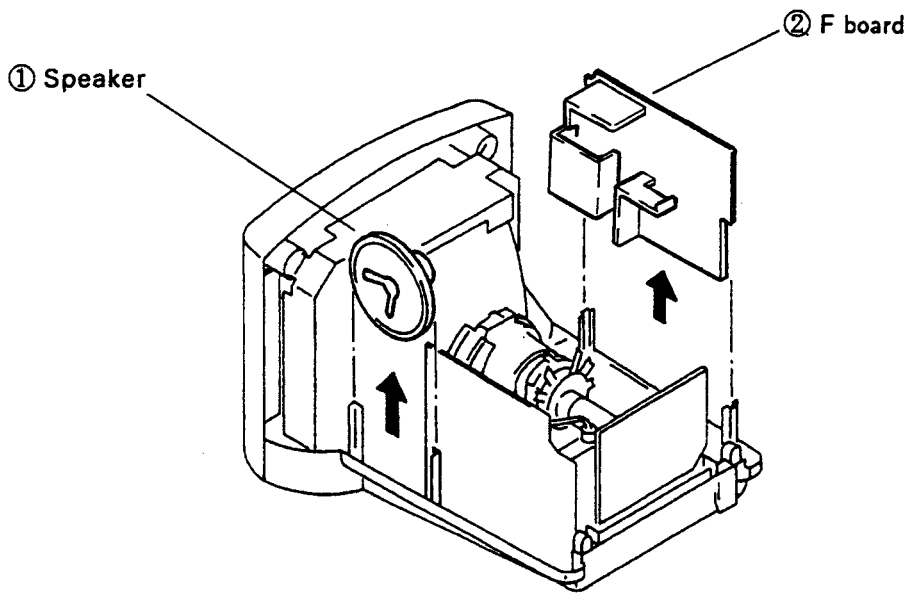
SECTION 2
DISASSEMBLY

2-1. COVER REMOVAL

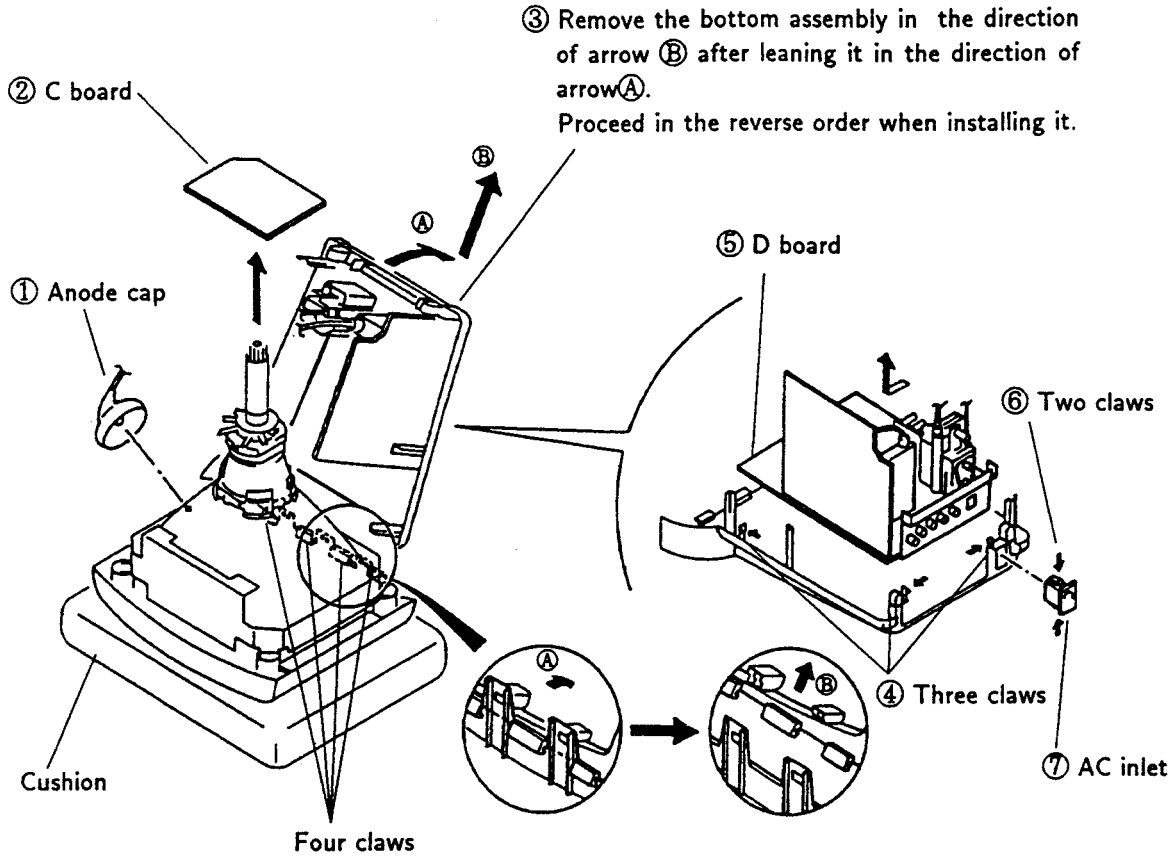
NOTE: Follow the disassembly procedure in the numerical over given.



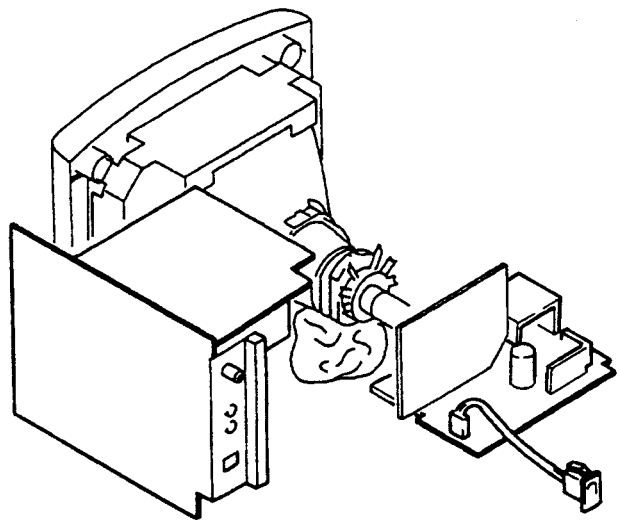
2-2. SPEAKER AND F BOARD REMOVAL



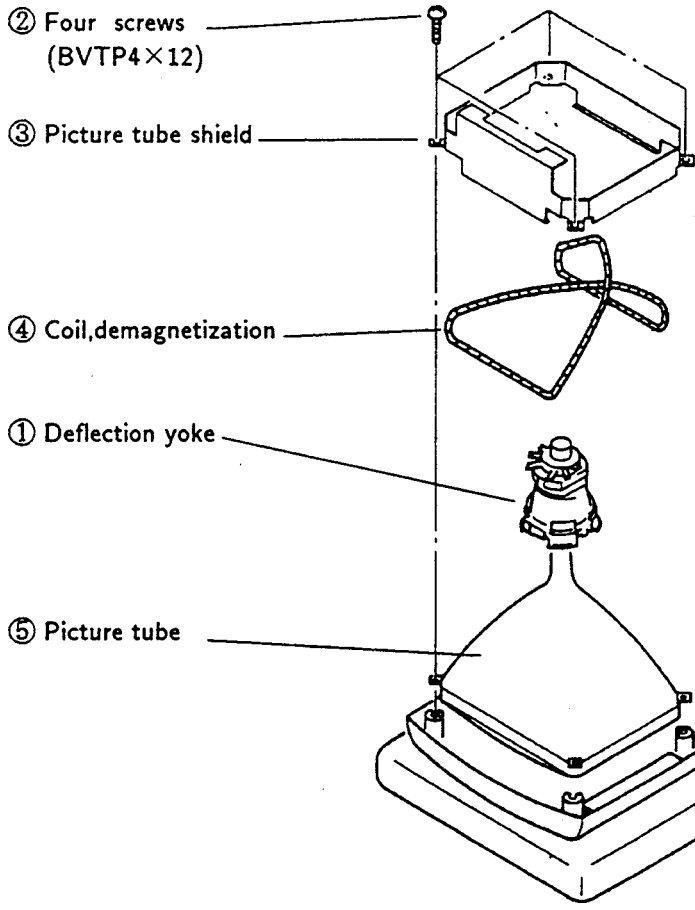
2-3. D BOARD REMOVAL



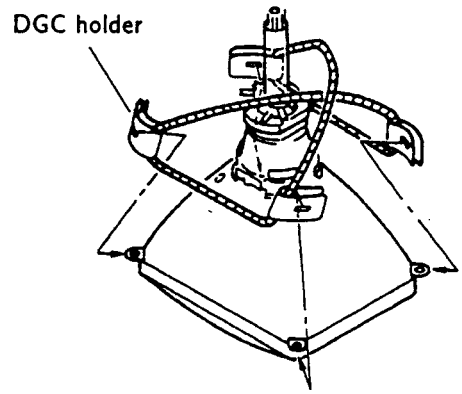
2-4. SERVICE POSITION



2-5. PICTURE TUBE REMOVAL



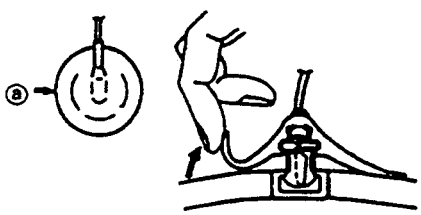
Before replacing the CRT, use the DGC holder for the CRT as shown in the illustration, and wind the DGC.



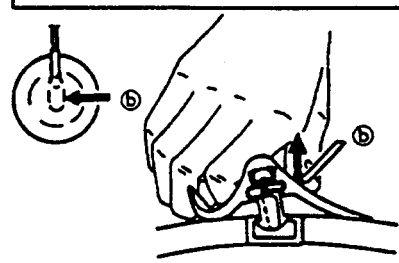
Note : Short circuit the anode of the picture tube and the anode cap to the metal chassis,CRT shield,or carbon painted on the CRT,after removing the anode.

• REMOVAL OF ANODE-CAP

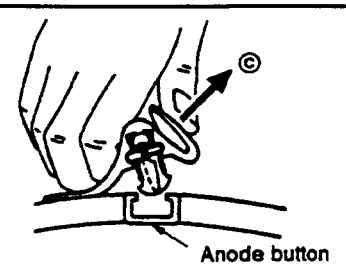
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



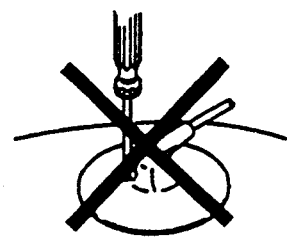
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

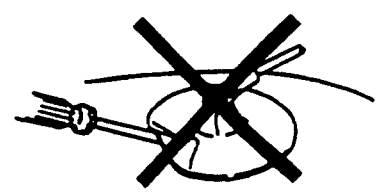
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

● The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
● These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted :

PICTURE control ..... normal
BRIGHTNESS control..... normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter

Preparation:

● Feed in the white pattern signal.
● Before starting, degauss the entire screen.

3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig.2
3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are at the sides evenly. (Fig.3)
5. Move the deflection yoke forward, and adjust so that the entire screen becomes green. (Fig.1)
6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets. (Fig.4)

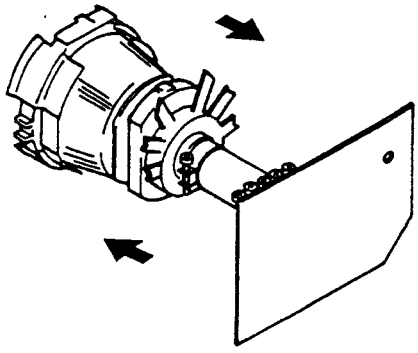


Fig.1

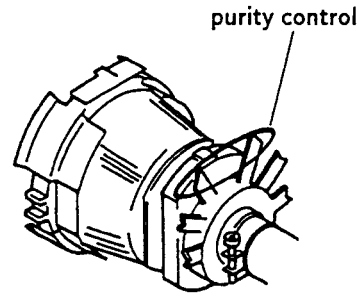


Fig.2

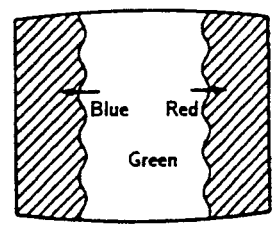


Fig.3

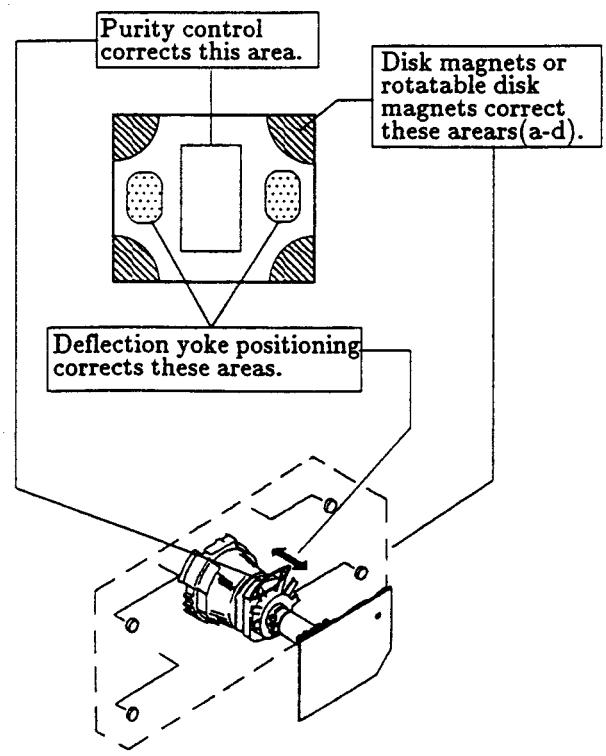

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these arears(a-d).
Deflection yoke positioning corrects these areas.

Fig.4

3-2. CONVERGENCE

Preparation:

- Before starting, perform FOCUS, H.SIZE, V.LIN and V.SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in dot pattern.

(1) Horizontal and Vertical Static Convergence

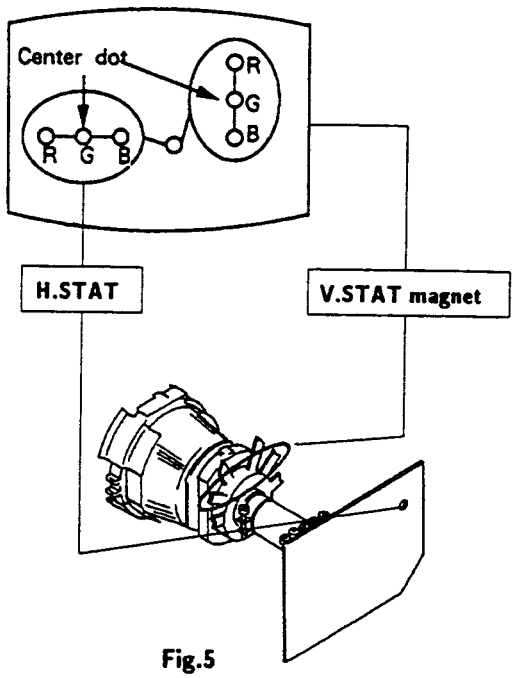
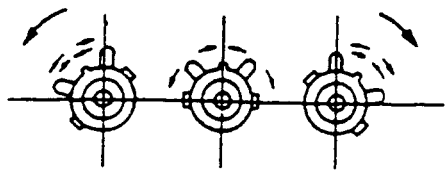


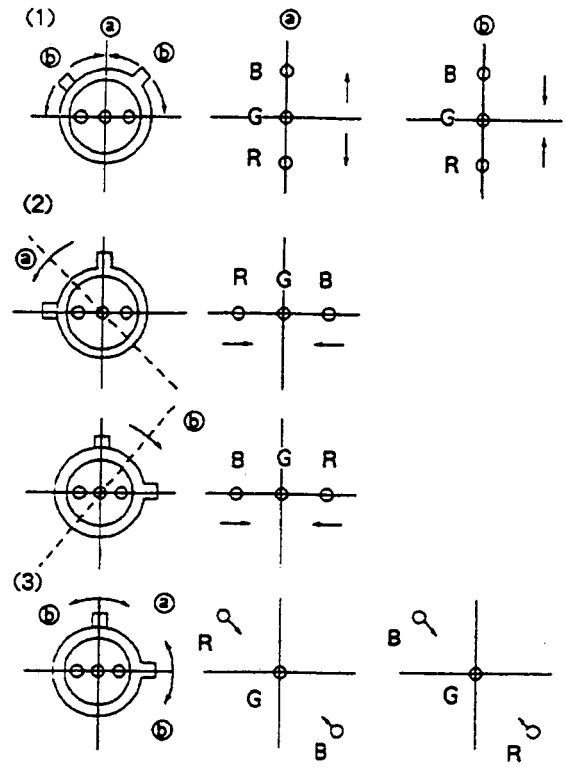
Fig.5

1. Adjust H.STAT VR to converge red, green and blue dots the in center of the screen.(Horizontal movement)
2. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)
3. If the red, green and blue dots do not converge on the center of screen with H.STAT VR, perform horizontal convergence adjustment using H.STAT VR and V.STAT magnet as shown below. (In this case, H.STAT VR and V.STAT magnet effect each other.)

- Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



4.When the V.STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.



* IF the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

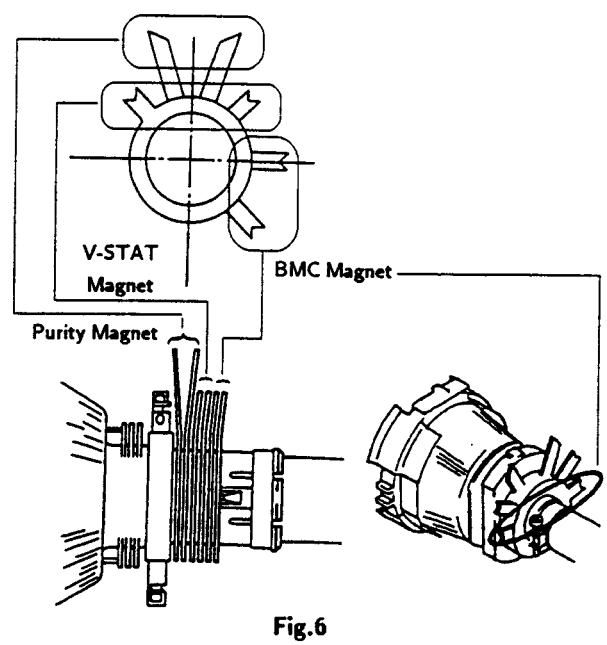
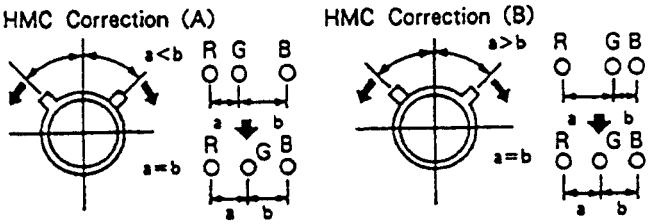


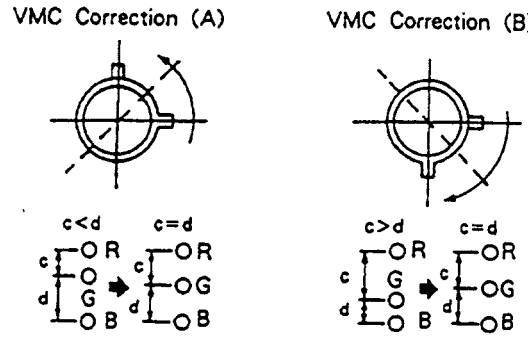
Fig.6

● HMC and VMC correction for BMC (6-polse) magnet.

1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.



2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.



(2)Dynamic Convergence Adjustment

Preparation:

● Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

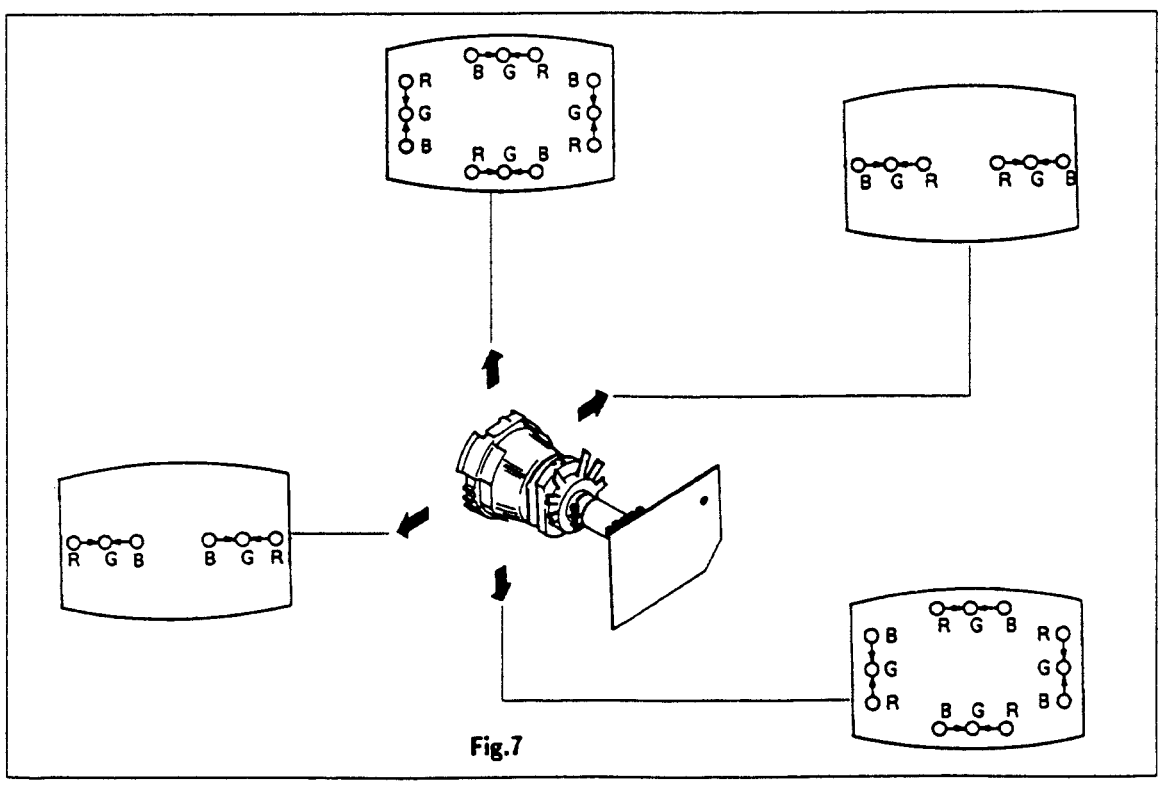


Fig.7

(3) Screen-corner Convergence

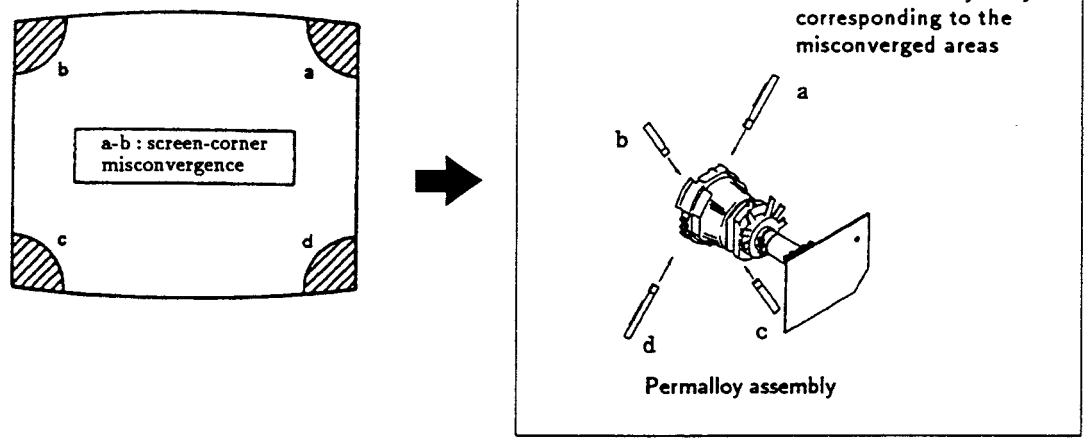


Fig.8

3-3. FOCUS

Adjust FOCUS control (FBT) for best picture.

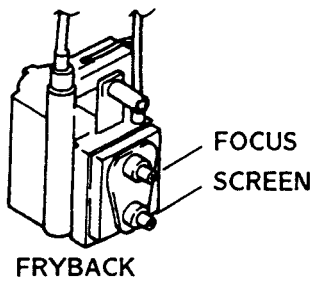


Fig.9

3-4. SCREEN(G 2) and WHITE BALANCE

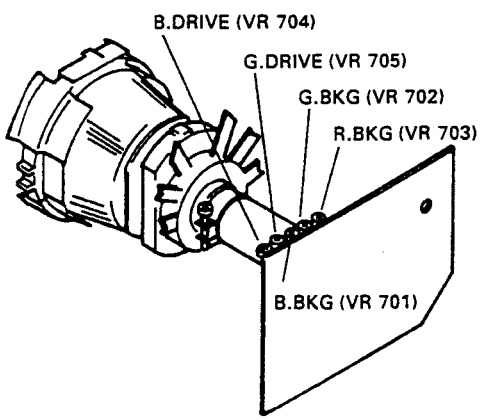


Fig.10

[SCREEN(G2)]

1. Input a dots pattarn.
2. Set the PIC, BRT controls at minimum and COLOR control at normal.
3. Adjust BKG VRs (VR 701, VR 702 and VR 703) so that voltages on the red, green and blue cathodes are 100 V dc with an oscilloscope as shown in Fig.11.
4. Observe the screen and adjust SCREEN VR (FBT) to obtain the faintly visible background of dot signal.

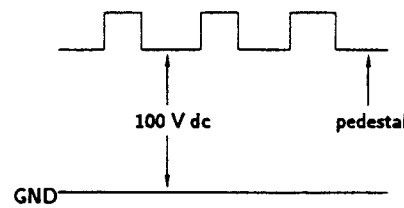


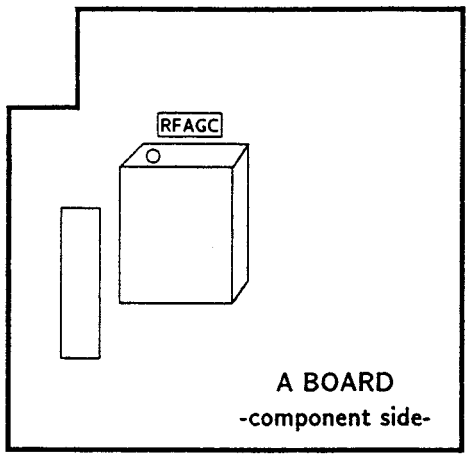
Fig.11

[WHITE BALANCE]

1. Receive a all white signal using a pattern generator.
2. Set the PIC control to minimum and set the BRT control at normal.
3. Adjust BKG controls (VR701, 702, 703) for best white balance.
4. Set the PICTURE control to maximum. Observe the screen and adjust the DRIVE controls (VR 704, 705) for best white balance.
5. Repeat steps 3 and 4.

SECTION 4
CIRCUIT ADJUSTMENTS

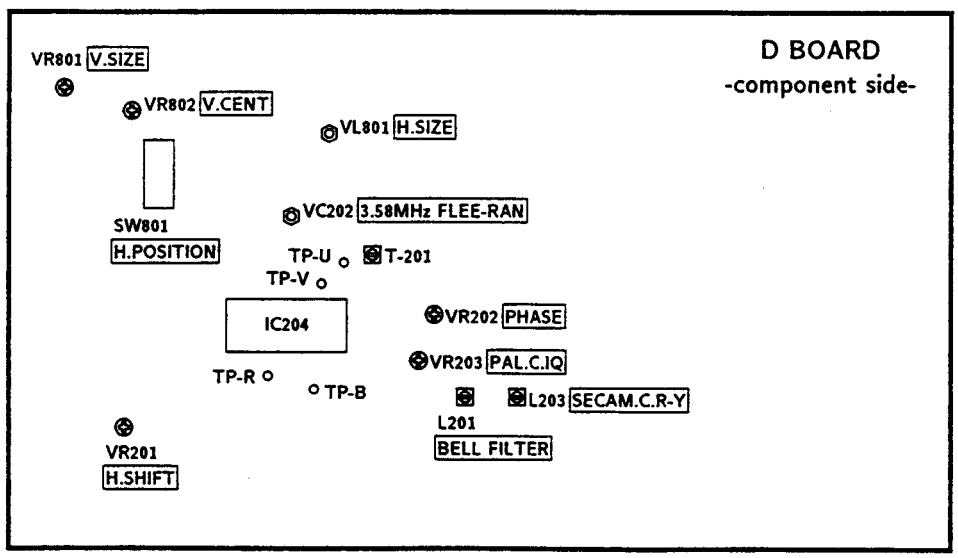
4-1. A BOARD ADJUSTMENTS



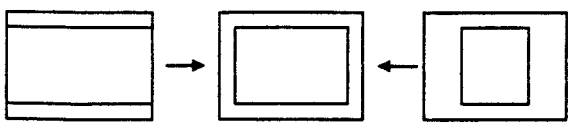
RF AGC ADJUSTMENT (IF181)

1. Receive a strong off-air signals.
2. Adjust RF AGC VR control so that snow noise and cross-modulation just disappear from the picture.

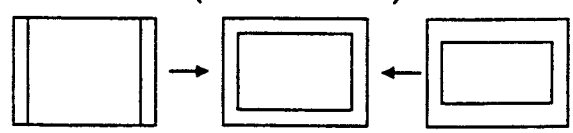
4-2. D BOARD ADJUSTMENTS



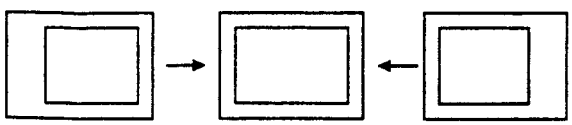
VL801 H. SIZE (HORIZONTAL SIZE)



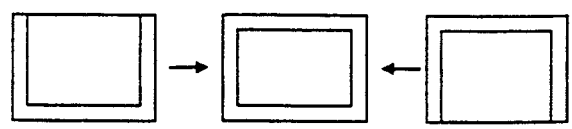
VR801 V. SIZE (VERTICAL SIZE)



SW801 H. POSITION (HORIZONTAL POSITION)
VR201 H. SHIFT (HORIZONTAL SHIFT)



VR802 V. CENT (VERTICAL CENTER)



SUB-BRIGHT ADJUSTMENT

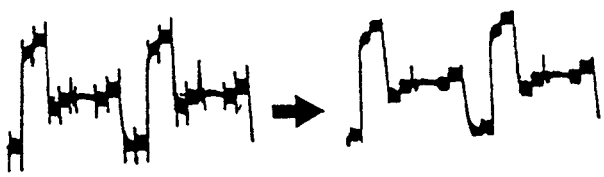
1. Receive a Monoscope signal.
2. Set the PICTURE controls to minimum.
3. Adjust the BRIGHTNESS with the remote commander and make the 20IRE spot of monoscope pattern slightly shines.
4. Set Sub-Bright by Remote commander.
   TEST → SUB → STORE

3.58MHz FREE-RAN ADJUSTMENT (VC202)

1. Receive a NTSC3.58 color-bar signal.
2. Adjust VR202 for maximum.
   PAL/AUTO SWITCH ···· AUTO
3. Set rhe PIC. COL. and BRT. controls to normal.
4. Adjust CV202 for suitable color intensity.
5. After the adjustment, turn VR202 back to a position where the COLOR locks.

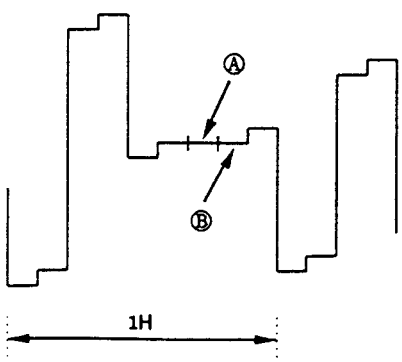
BELL FILTER ADJUSTMENT (L201)

1. Receive a SECAM color-bar signal.
2. Connect the oscilloscope to pin ㉞ (TP-B) of IC204.
3. Adjust L201 as shown the following figure.



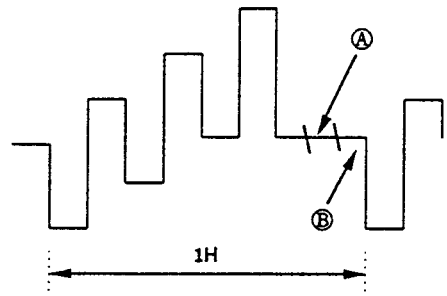
SECAM CHROMA B-Y ADJUSTMENT (L204)

1. Receive a SECAM color-bar signal.
2. Connect the oscilloscope to pin ㉞ (TP-B) of IC204.
3. Adjust L204 to bring the Ⓑ - spot level to Ⓐ - spot level.



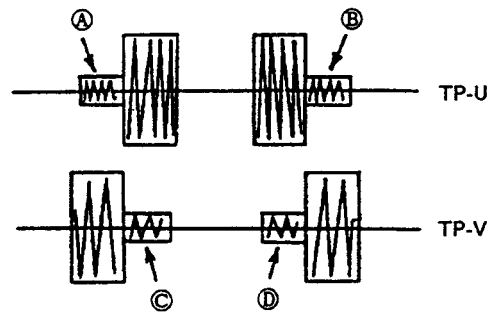
SECAM CHROMA R-Y ADJUSTMENT (L203)

1. Receive a SECAM color-bar signal.
2. Connect the oscilloscope to pin ㉟ (TP-R) of IC204.
3. Adjust L203 to bring the Ⓑ - spot level to Ⓐ - spot level.



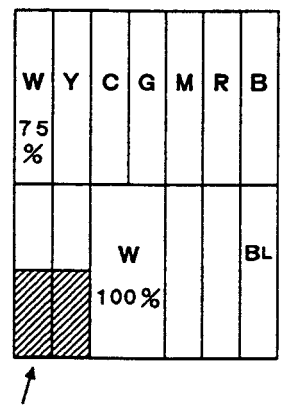
PAL, CHROMA IQ ADJUSTMENT (T201, VR203)

1. Receive a PAL color-bar signal.
2. Connect an oscilloscope to the test-pin TP-U.
3. Adjust T201 and put the Ⓑ spot level at minimum on Ⓐ spot.
4. Connect an oscilloscope to the test-pin TP-V.
5. Adjust VR203 and put the Ⓒ spot level at minimum on Ⓓ spot.

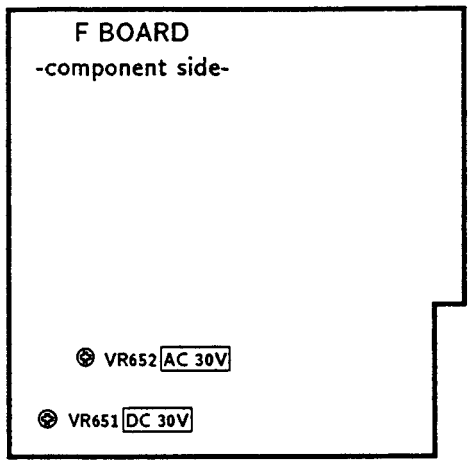


PHASE ADJUSTMENT (VR202)

1. Receive a color-bar signal.
2. Turn VR202 and adjust the left button color of the color bar to minimum.



4-3. F BOARD ADJUSTMENTS



AC 30V ADJUSTMENT (VR652)

1. Supply 110~240VAC to with AC power cord.
2. Receive a color-bar signal.
3. Connect a digital multi-meter to the TP1.
4. Adjust VR652 for 30±0.1VDC on the digital multi -meter.

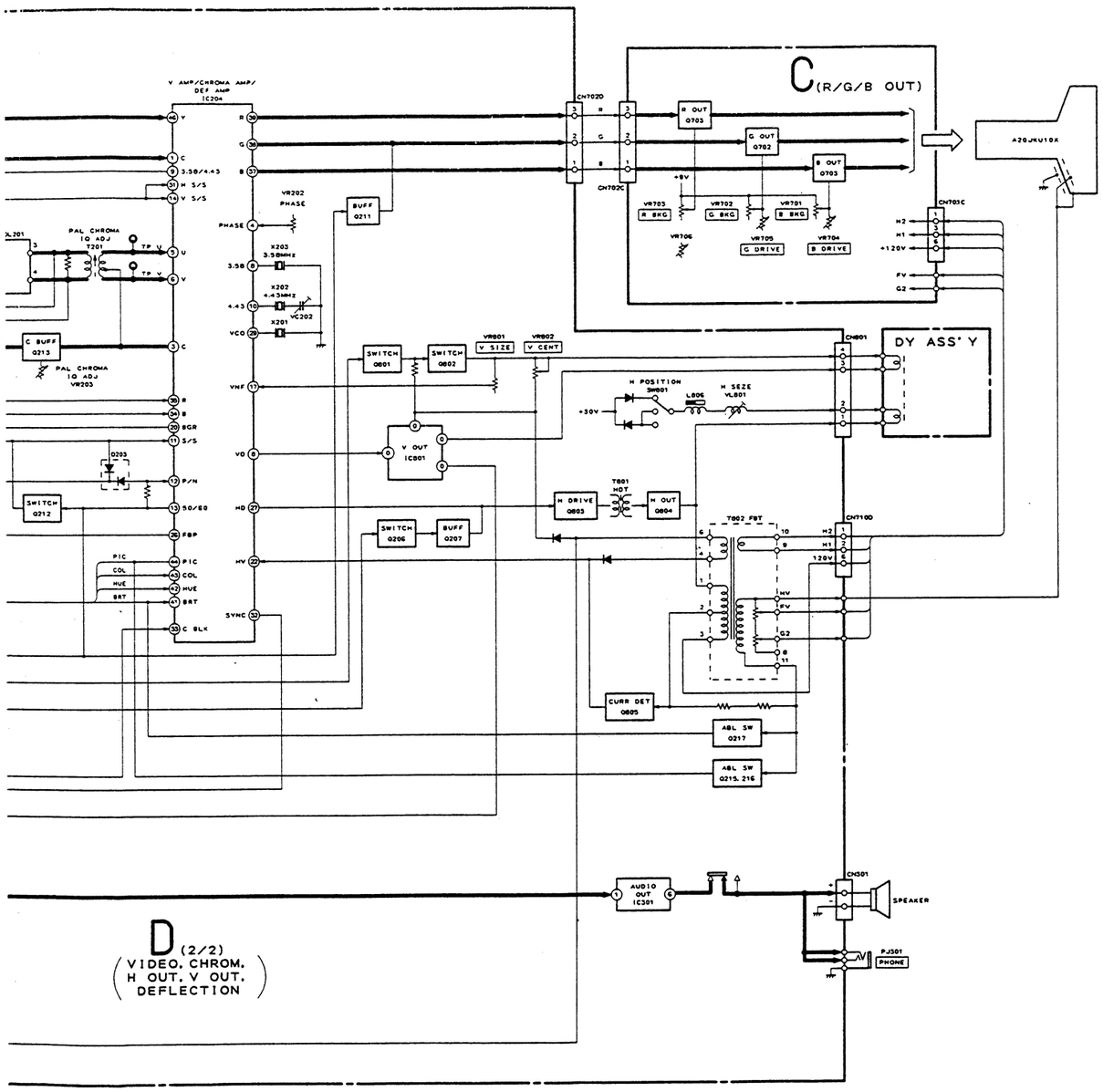
DC 30V ADJUSTMENT (VR651)

1. Supply 12~24VDC to with car battery cord.
2. Receive a color-bar signal.
3. Connect a digital multi-meter to the TP1.
4. Adjust VR651 for 30±0.1VDC on the digital multi -meter.

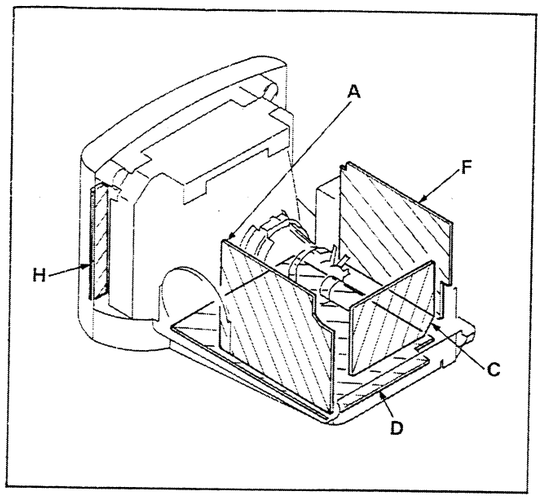
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM

A
(MEMORY/CPU
SYSTEM CONTROL)
H
(USER CONTROL)
D
(1/2)
D
(2/2)
VIDEO, CHROM,
H OUT, V OUT,
DEFLECTION)
F
(POWER)
SYSTEM CONTROL
IC101
VIDEO SELECT
IC201
VIDEO AMP
Q201, 202
V AMP/CHROMA AMP/
DEF AMP
IC204
SECAM
DECODER
IC203
IF181
LINE IN
VIDEO
AUDIO
+8V REG
IC202
REG
Q301
AUDIO +8
+5V REG
IC104
+5V REG
IC181
STABLIZ
REG
IC601
AC110V-240V
50/60Hz
DC13/24V
BACK UP
H PULSE
STBY
+12V
+30V
AUDIO VOL
SWITCH
Q101
SWITCH
Q104
SWITCH
Q109
SWITCH
Q186
SWITCH
Q212
MUTE
Q102
BUFF
Q103
SWITCH
Q694
SWITCH
Q695
SWITCH
DRIVE
IC651
RELAY
DRIVE
Q655
RELAY
Q301
RY601
PC601
PC602
IC652
VOL DET
VR652
AC30V
VR651
DC30V
VR201
H SHIFT
PAL CHROMA
10 ADJ
VR203
PAL CHROMA
10 ADJ
T201
VR202
PHASE
X203
3.58MHz
X202
4.43MHz
X201
SW207
PAL
AUTO
FUNCTION
KEY
SW201-SW206
FUNCTION
KEY
SW11-SW16
KEY
CONT
IC11
R/C
SENSOR
IC12
VT
DRIVE
Q181
VT
FILTER
Q182
U SW
Q183
VH SW
Q184
VL SW
Q185
EEP
ROM
IC103
RESET
IC102
TU181
IF
RF AGC
AFT
SYSTEM1
SYSTEM2
VOL GL
VOL
AUDIO DET
VIDEO
AUDIO
TV/AV
I2C DAT
I2C CLK
RESET
OSC1
OSC2
OSC I
OSC O
SIRCS
RESPONCE
STAND BY
INITIAL
OPTION1
OPTION2
K04
K03
K02
K01
K00
K12
K11
K10
PIC
COL
HUE
BRT
COLOR
BRIGHT
OSD G
OSD H
OSD V
BLK
SYNC
HD
BLANK
C SYNC
VD
S/S
BGR
P/H
SO/60
FBP
C BLK
AS, NZ ONLY
CE16, 617
CE18, 618
CN601
CN602
CN651
CN652
CN6520
CN101A
CN102
CN103
CN104
CN201
CN202
CN203
F601
250V
T3.15A
F651
250V
T5A
F652
250V
T5A
L601
L606
L201
DL201
TG01
DG01
DG03
DG07
DG56
DG57
PIC
COL
HUE
BRT
SECAM
CHROMA
TP R
TP B
TP U
TP V
BUFF
Q214
C BUFF
Q213
V BUFF
Q210
V BUFF
Q208
V BUFF
Q204
DRIVE
Q601
DRIVE
Q11
SWITCH
Q12
SWITCH
Q14
SWITCH
Q101
SWITCH
Q104
SWITCH
Q109
SWITCH
Q186
SWITCH
Q212
SWITCH
Q694
SWITCH
Q695


V AMP/CHROMA AMP/ DEF AMP IC204
C (R/G/B OUT)
CH702D
CH702C
R OUT Q703
G OUT Q702
B OUT Q703
A20JKU10X
CH703C
H2
H1
+120V
FV
G2
VR703 R BKG
VR702 G BKG
VR701 B BKG
VR706
VR705 G DRIVE
VR704 B DRIVE
+8V
VR202 PHASE
BUFF Q211
X203 3.58MHZ
X202 4.43MHZ
VC202
X201
PAL CHROMA IQ ADJ T201
C BUFF Q213
PAL CHROMA IQ ADJ VR203
SWITCH Q801
SWITCH Q802
VR801 V SIZE
VR802 V CENT
CH801
DY ASS'Y
H POSITION SW801
L805
H SEZE VL801
+30V
V OUT IC801
H DRIVE Q803
T801 HOT
H OUT Q804
T802 FBT
CH710D
SWITCH Q212
SWITCH Q206
BUFF Q207
D203
PIC
COL
HUE
BRT
CURR DET Q805
ABL SW Q217
ABL SW Q215, 216
AUDIO OUT IC301
CH301
SPEAKER
PJ301
PHONE
D (2/2)
VIDEO. CHROM.
H OUT. V OUT.
DEFLECTION

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytic and tantalums.
- All resistors are in ohms.
  kΩ =1000Ω , MΩ =1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W
- : nonflammable resistor.
- △ : internal component.
- : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

- Readings are taken with a color-bar signal input.
  no mark : with NTSC 3.58 color-bar signal received.
  ( ) : with PAL color-bar signal received.
  < > : with SECAM color-bar signal received.
- Readings are taken with a 10MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

A MEMORY SYSTEM CONTROL CPU CIRCUIT

—A Board—

A Board

IC

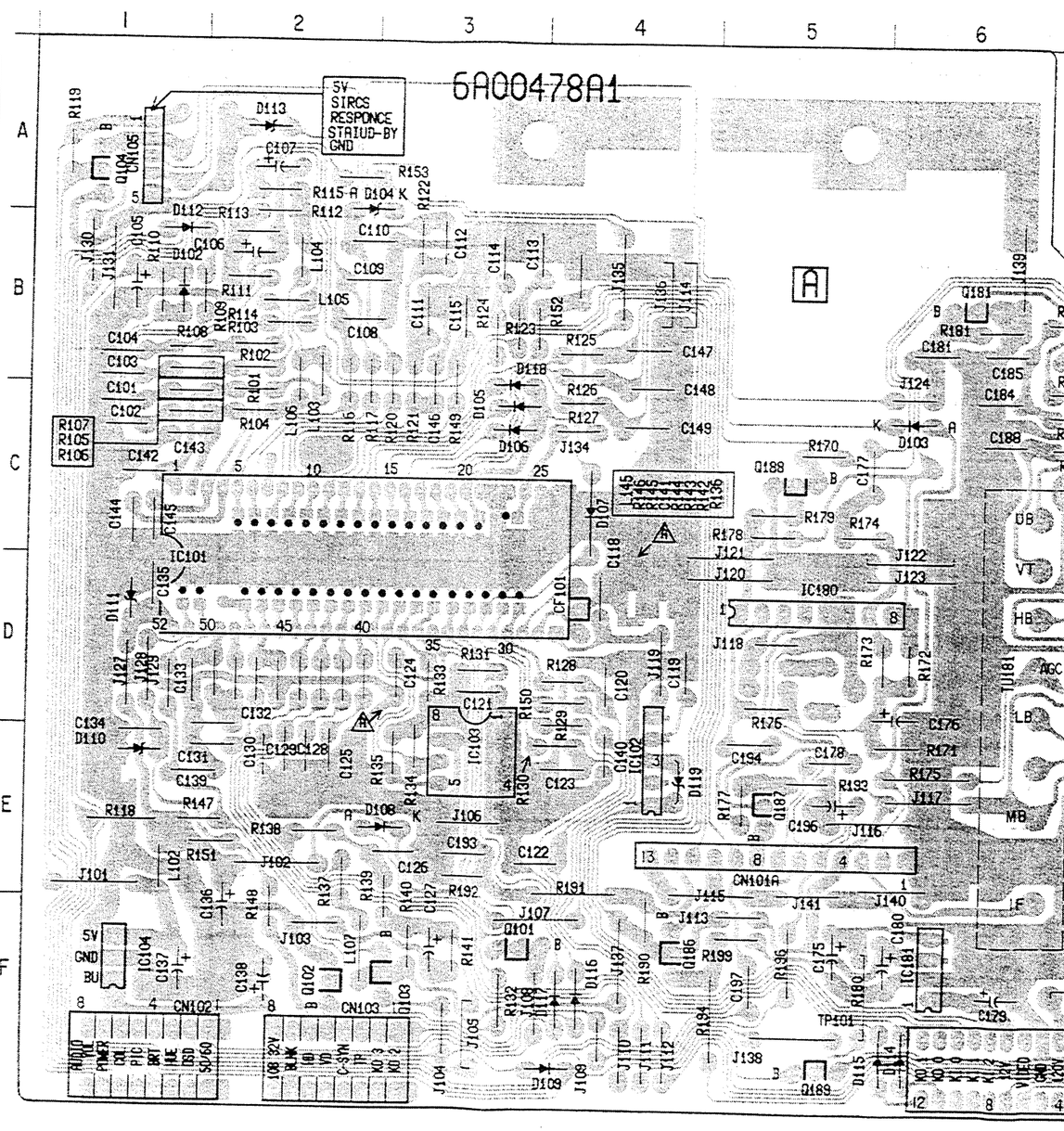
IC101	C-2
IC102	E-4
IC103	E-3
IC104	F-1
IC180	D-5
IC181	F-6

TRANSISTOR

Q101	F-3
Q102	F-2
Q103	F-3
Q104	A-1
Q181	B-6
Q182	B-7
Q183	C-7
Q184	D-7
Q185	E-7
Q186	F-4
Q187	E-5
Q188	C-5
Q189	F-5

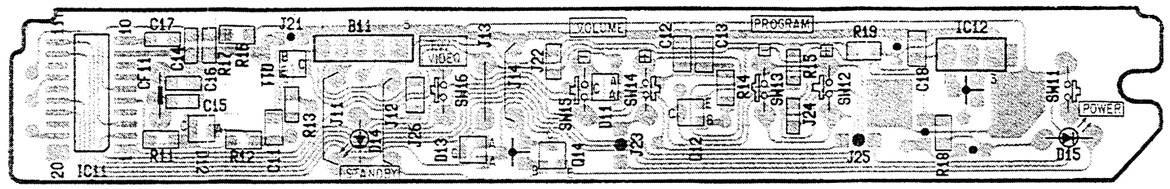
DIODE

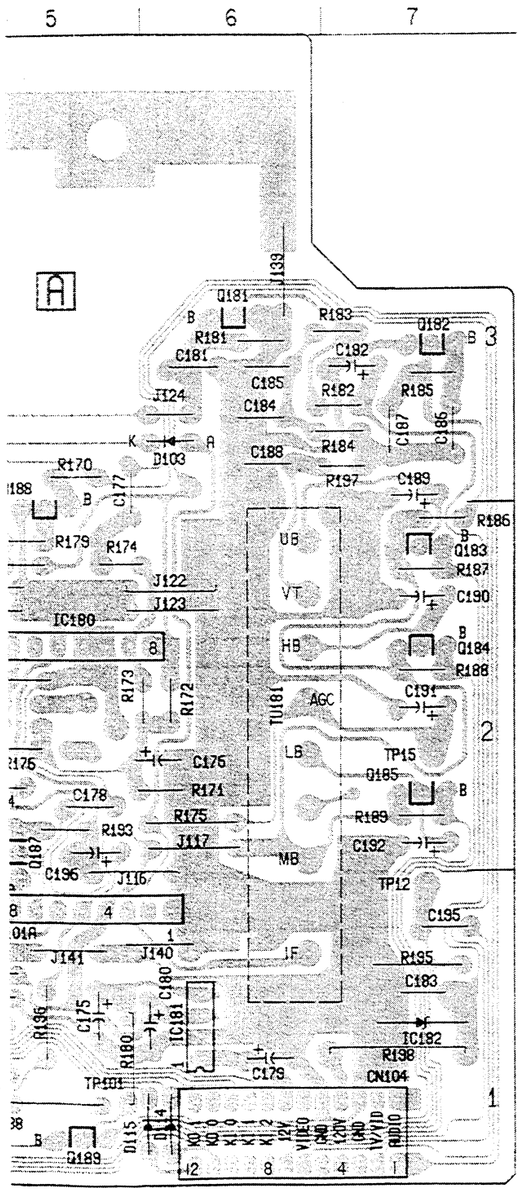
D102	B-1
D103	C-6
D104	A-2
D105	C-3
D106	C-3
D107	C-4
D108	E-3
D110	E-1
D111	D-1
D113	A-2
D114	F-6
D115	F-6
D116	F-4
D117	F-4
D182	F-7



H [USER CONTROL]

—H Board—

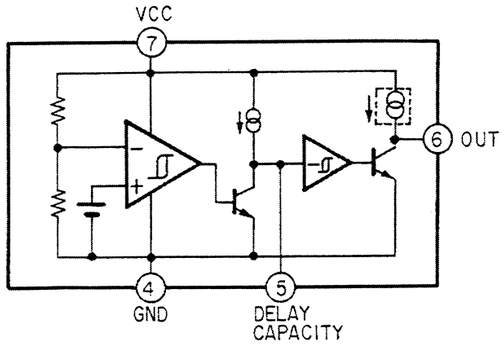




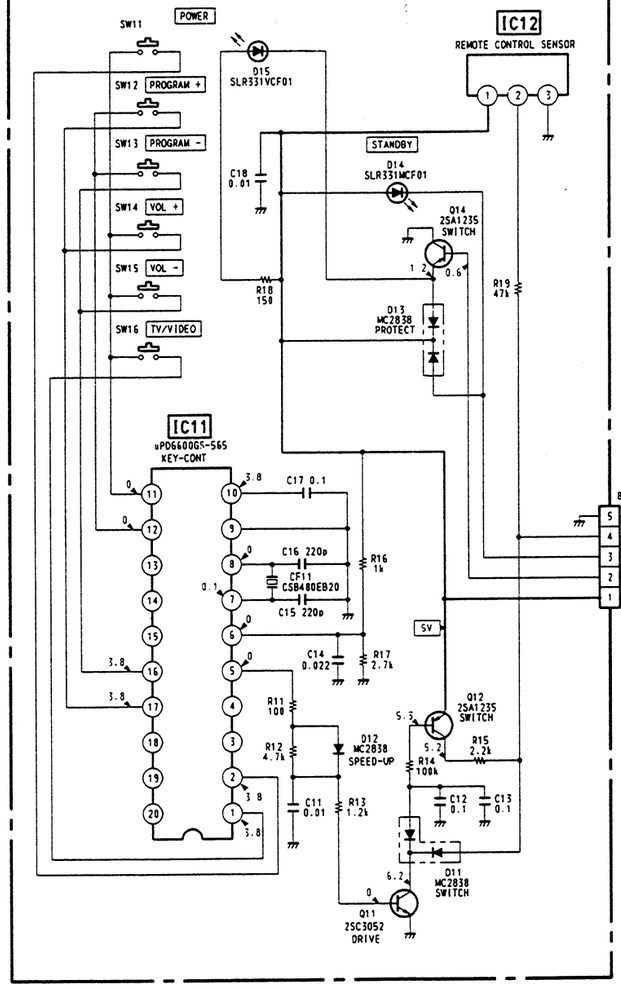
A BOARD

①	② NTSC	② PAL/SECAM
6.7Vp-p (4.0MHz)	3 Vp-p (H)	2.4 Vp-p (H)

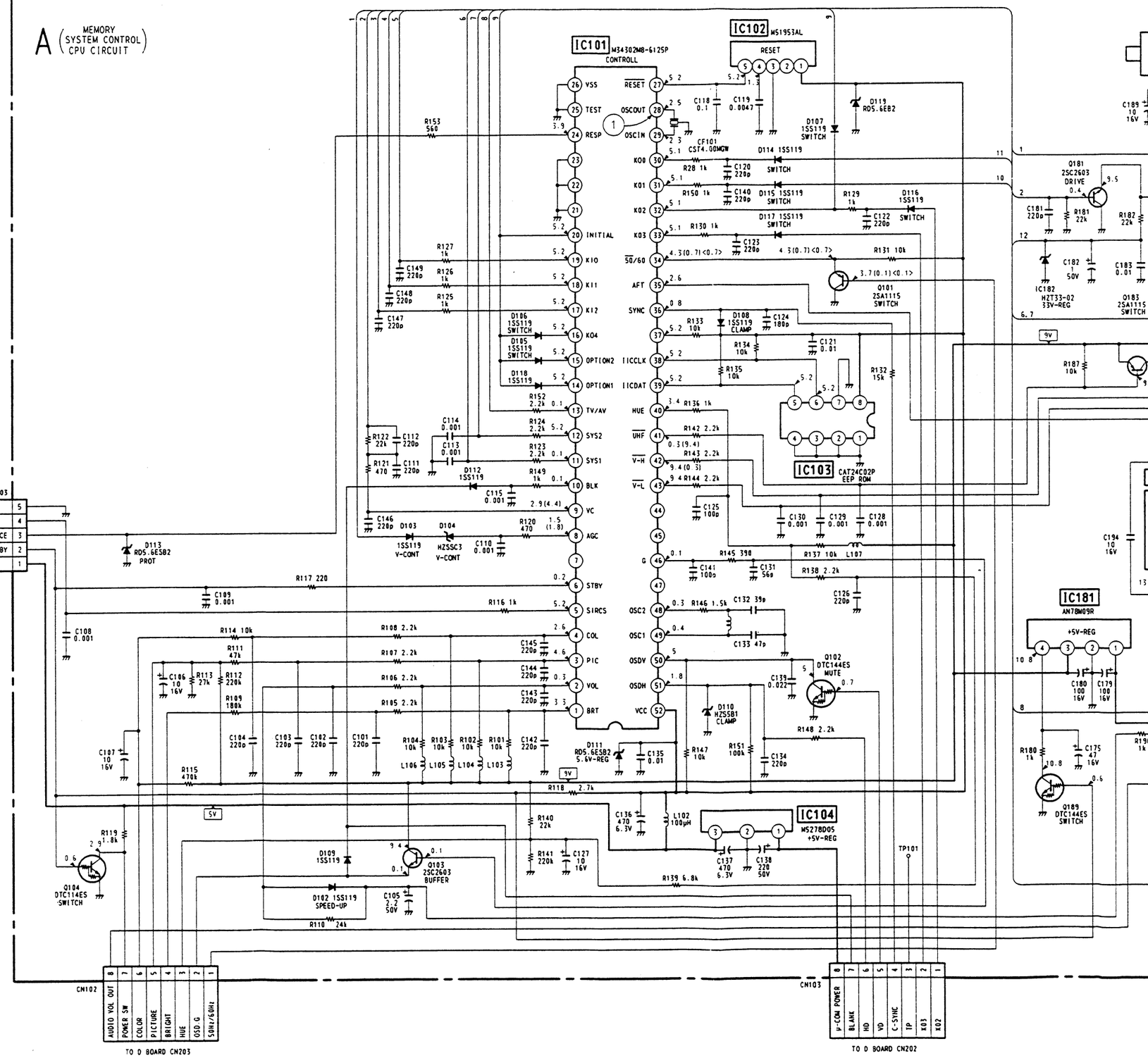
· A Board IC102 M51953AL



H (USER CONTROL)

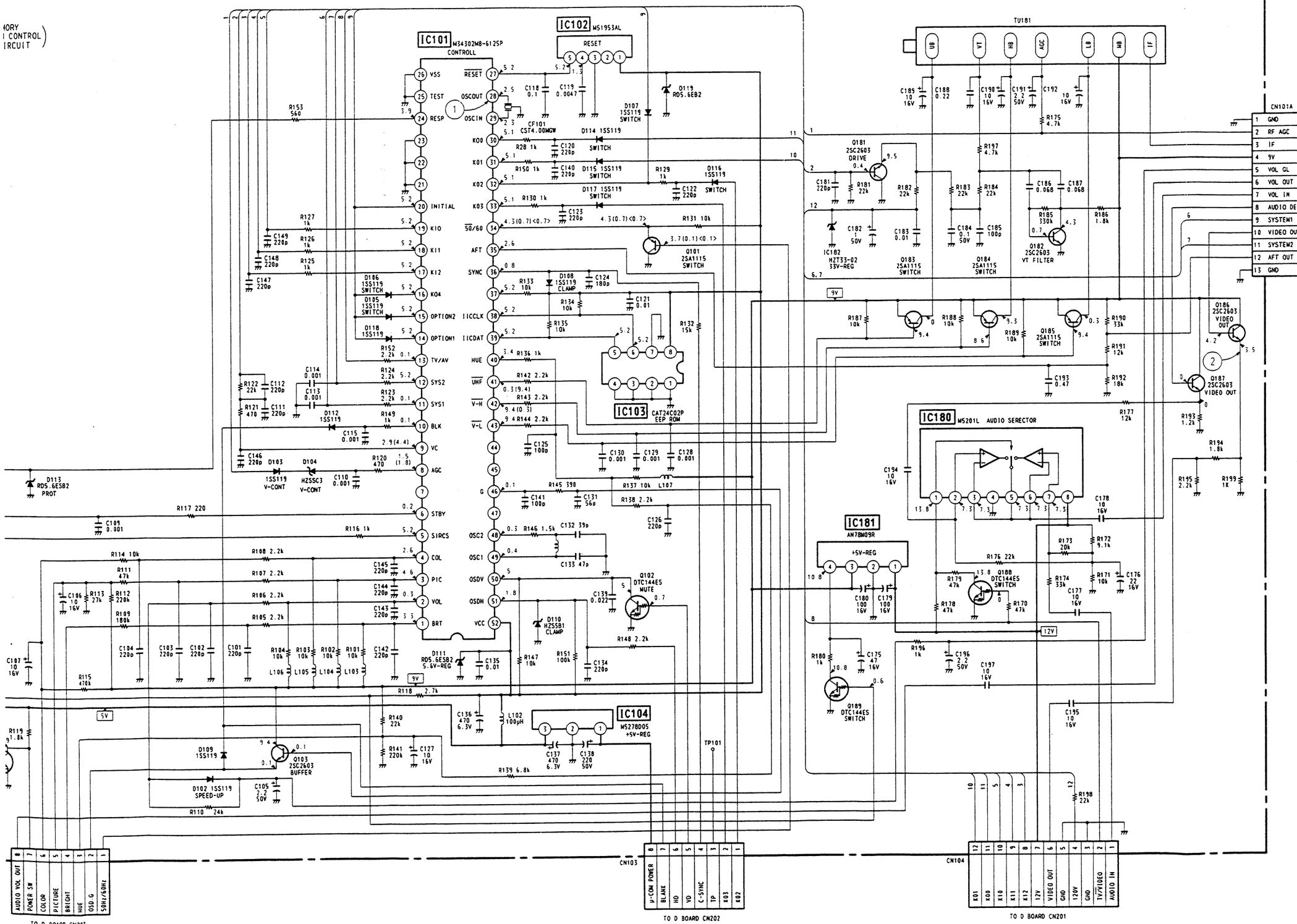


A (MEMORY SYSTEM CONTROL CPU CIRCUIT)



8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

MORY
CONTROL
RCUIT)



KV-9MD1
RM-827S

D [VIDEO, CHROMA
H OUT, V OUT
DEFLECTION]

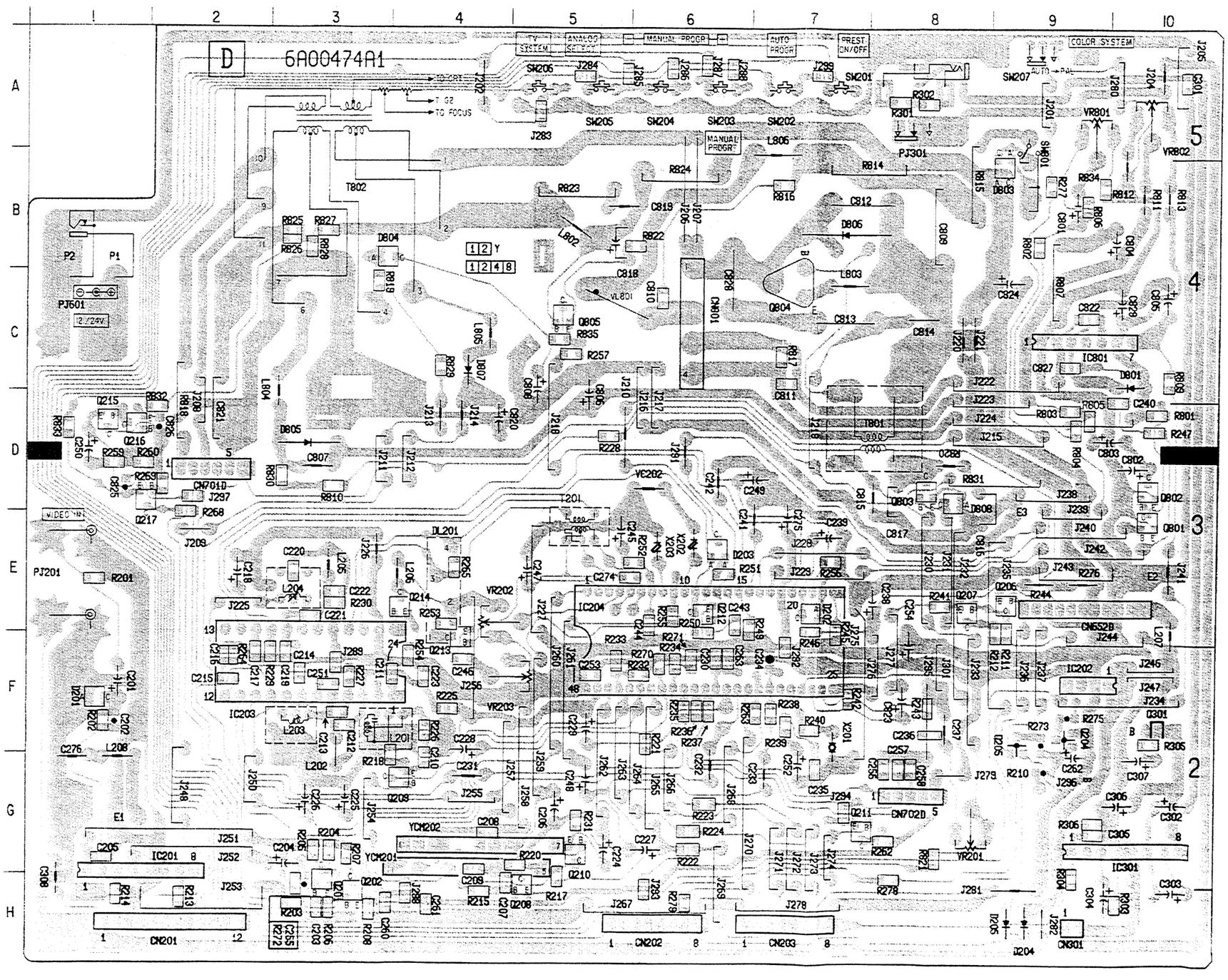
—D Board—

D Board

IC	
IC201	H-2
IC202	F-9
IC203	F-3
IC204	E-6
IC301	G-10
IC801	C-9

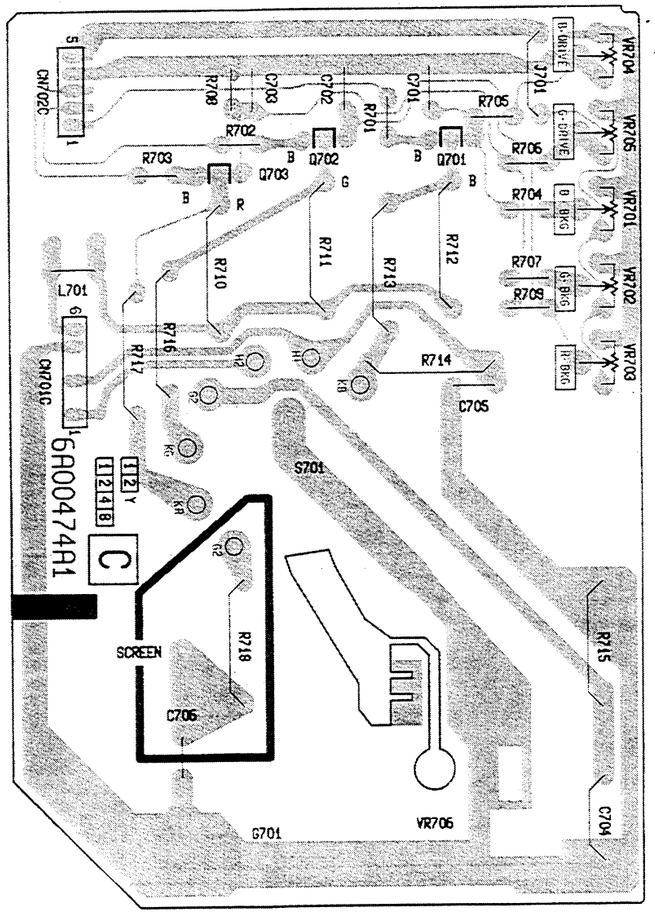
TRANSISTOR	
Q201	H-3
Q202	H-3
Q204	F-9
Q205	F-9
Q206	E-9
Q207	E-8
Q208	H-5
Q209	G-4
Q210	G-5
Q211	G-7
Q212	E-6
Q213	F-4
Q214	E-4
Q215	D-1
Q216	D-1
Q217	D-1
Q801	E-10
Q802	D-10
Q803	D-8
Q805	C-5

DIODE	
D201	F-1
D202	E-7
D203	E-6
D204	H-9
D205	H-9
D801	C-10
D803	D-8
D804	B-3
D805	D-3
D806	B-7
D807	C-4
D808	D-8



C [R. G. B OUT]

—C Board—



D (VIDEO, CHROMA/ H OUT, V OUT/ DEFLECTION)

IC203 CXA1214P SECAM DECODER

IC204 CXA1213BS

IC281 LA7814 VIDEO SELECT SW

IC301 μPC1241H AUDIO OUT

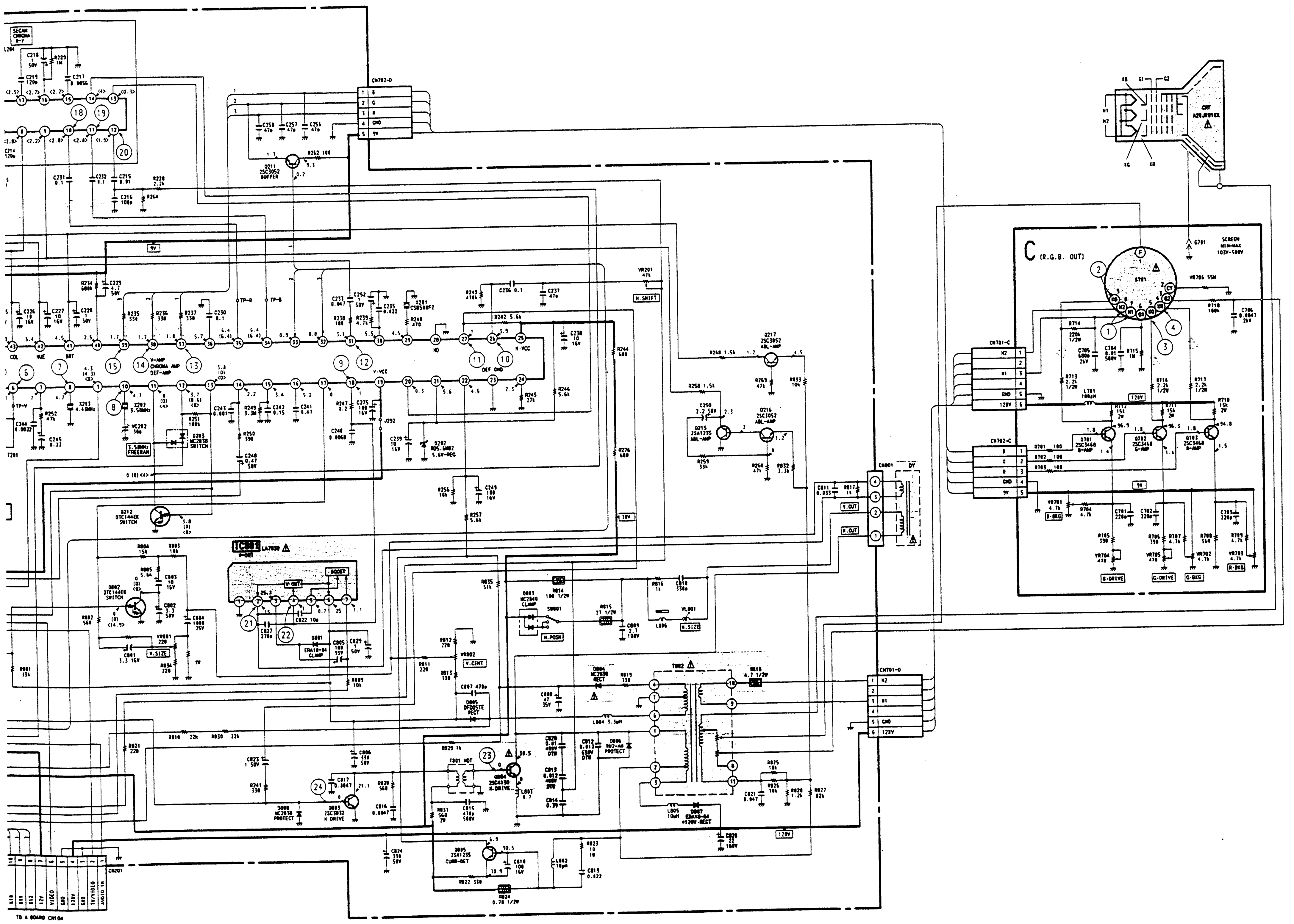
IC202 AN7809FS +9V REG

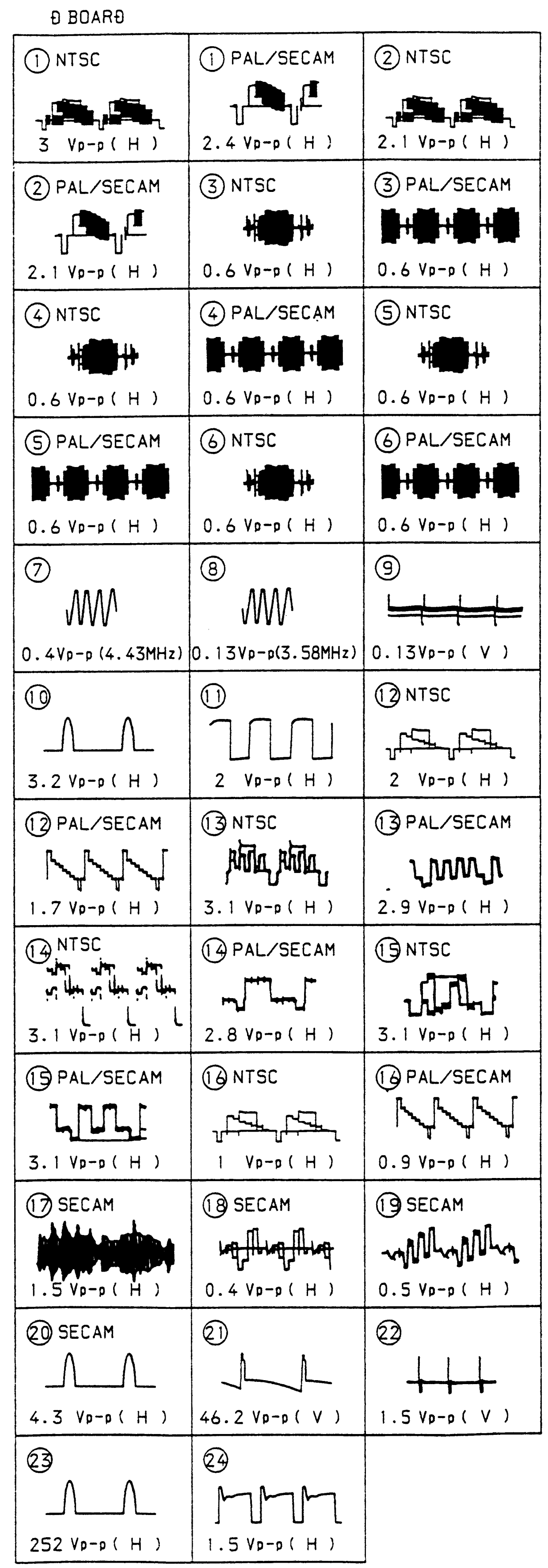
IC801 LA7838 V-OUT

TV-SYSTEM SW206 · PRESET ON/OFF SW201 · MANUAL PROGRA + SW203 · ANALOG SERECT SW205 · AUTO PRESET SW202 · MANUAL PROGRA - SW204

TO F BOARD CN652 · TO A BOARD CN102 · TO A BOARD CN103 · TO A BOARD CN104

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21


SECAM CHROMA R-Y
CN702-D
B
G
R
GND
9V
Q211 2SC3052 BUFFER
R262 100
9V
TP-R
TP-B
COL
HUE
BRT
V-AMP CHROMA AMP DEF-AMP
HD
H-VCC
DEF GND
V-VCC
X203 4.43MHz
X202 3.58MHz
VC202 30p
3.58MHz FREERAN
D203 MC2838 SWITCH
J292
D202 RD5.6MB2 5.6V-REG
X201 CSB500F2
VR201 47k
H.SHIFT
Q217 2SC3052 ABL-AMP
Q215 2SA1235 ABL-AMP
Q216 2SC3052 ABL-AMP
Q212 DTC144EK SWITCH
30V
IC801 LA7830
V-OUT
BOOST
Q802 DTC144EK SWITCH
VR801 220
V.SIZE
D801 ERA18-04 CLAMP
VR802
V.CENT
D805 DFDOSTE RECT
D803 MC2840 CLAMP
SW801
H.POSN
VL801
H.SIZE
D804 MC2838 RECT
T802
L804 3.3μH
D806 RU2-AM PROTECT
T801 HDT
Q804 2SC4130 H.DRIVE
Q803 2SC3032 H DRIVE
D808 MC2838 PROTECT
Q805 2SA1235 CURR-DET
L805 10μH
D807 ERA18-04 +120V RECT
120V
CN801
DY
V.OUT
H.OUT
CN701-D
H2
H1
GND
120V
CN201
TO A BOARD CN104
CRT A20JRU01X
C (R.G.B. OUT)
G701
SCREEN MIN-MAX 103V-580V
S701
VR706 55M
CN701-C
CN702-C
Q701 2SC3468 B-AMP
Q702 2SC3468 G-AMP
Q703 2SC3468 R-AMP
B-BKG
B-DRIVE
G-DRIVE
G-BKG
R-BKG


D BOARD
① NTSC 3 Vp-p (H)
① PAL/SECAM 2.4 Vp-p (H)
② NTSC 2.1 Vp-p (H)
② PAL/SECAM 2.1 Vp-p (H)
③ NTSC 0.6 Vp-p (H)
③ PAL/SECAM 0.6 Vp-p (H)
④ NTSC 0.6 Vp-p (H)
④ PAL/SECAM 0.6 Vp-p (H)
⑤ NTSC 0.6 Vp-p (H)
⑤ PAL/SECAM 0.6 Vp-p (H)
⑥ NTSC 0.6 Vp-p (H)
⑥ PAL/SECAM 0.6 Vp-p (H)
⑦ 0.4Vp-p (4.43MHz)
⑧ 0.13Vp-p(3.58MHz)
⑨ 0.13Vp-p (V)
⑩ 3.2 Vp-p (H)
⑪ 2 Vp-p (H)
⑫ NTSC 2 Vp-p (H)
⑫ PAL/SECAM 1.7 Vp-p (H)
⑬ NTSC 3.1 Vp-p (H)
⑬ PAL/SECAM 2.9 Vp-p (H)
⑭ NTSC 3.1 Vp-p (H)
⑭ PAL/SECAM 2.8 Vp-p (H)
⑮ NTSC 3.1 Vp-p (H)
⑮ PAL/SECAM 3.1 Vp-p (H)
⑯ NTSC 1 Vp-p (H)
⑯ PAL/SECAM 0.9 Vp-p (H)
⑰ SECAM 1.5 Vp-p (H)
⑱ SECAM 0.4 Vp-p (H)
⑲ SECAM 0.5 Vp-p (H)
⑳ SECAM 4.3 Vp-p (H)
㉑ 46.2 Vp-p (V)
㉒ 1.5 Vp-p (V)
㉓ 252 Vp-p (H)
㉔ 1.5 Vp-p (H)

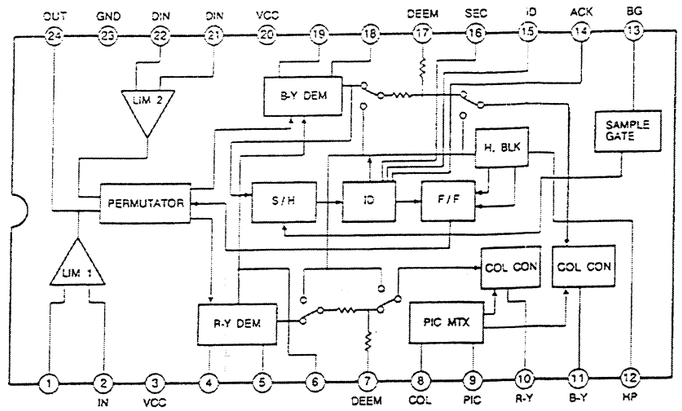
D BOARD

① NTSC 3 Vp-p (H)	① PAL/SECAM 2.4 Vp-p (H)	② NTSC 2.1 Vp-p (H)
② PAL/SECAM 2.1 Vp-p (H)	③ NTSC 0.6 Vp-p (H)	③ PAL/SECAM 0.6 Vp-p (H)
④ NTSC 0.6 Vp-p (H)	④ PAL/SECAM 0.6 Vp-p (H)	⑤ NTSC 0.6 Vp-p (H)
⑤ PAL/SECAM 0.6 Vp-p (H)	⑥ NTSC 0.6 Vp-p (H)	⑥ PAL/SECAM 0.6 Vp-p (H)
⑦ 0.4Vp-p (4.43MHz)	⑧ 0.13Vp-p(3.58MHz)	⑨ 0.13Vp-p (V)
⑩ 3.2 Vp-p (H)	⑪ 2 Vp-p (H)	⑫ NTSC 2 Vp-p (H)
⑫ PAL/SECAM 1.7 Vp-p (H)	⑬ NTSC 3.1 Vp-p (H)	⑬ PAL/SECAM 2.9 Vp-p (H)
⑭ NTSC 3.1 Vp-p (H)	⑭ PAL/SECAM 2.8 Vp-p (H)	⑮ NTSC 3.1 Vp-p (H)
⑮ PAL/SECAM 3.1 Vp-p (H)	⑯ NTSC 1 Vp-p (H)	⑯ PAL/SECAM 0.9 Vp-p (H)
⑰ SECAM 1.5 Vp-p (H)	⑱ SECAM 0.4 Vp-p (H)	⑲ SECAM 0.5 Vp-p (H)
⑳ SECAM 4.3 Vp-p (H)	㉑ 46.2 Vp-p (V)	㉒ 1.5 Vp-p (V)
㉓ 252 Vp-p (H)	㉔ 1.5 Vp-p (H)	

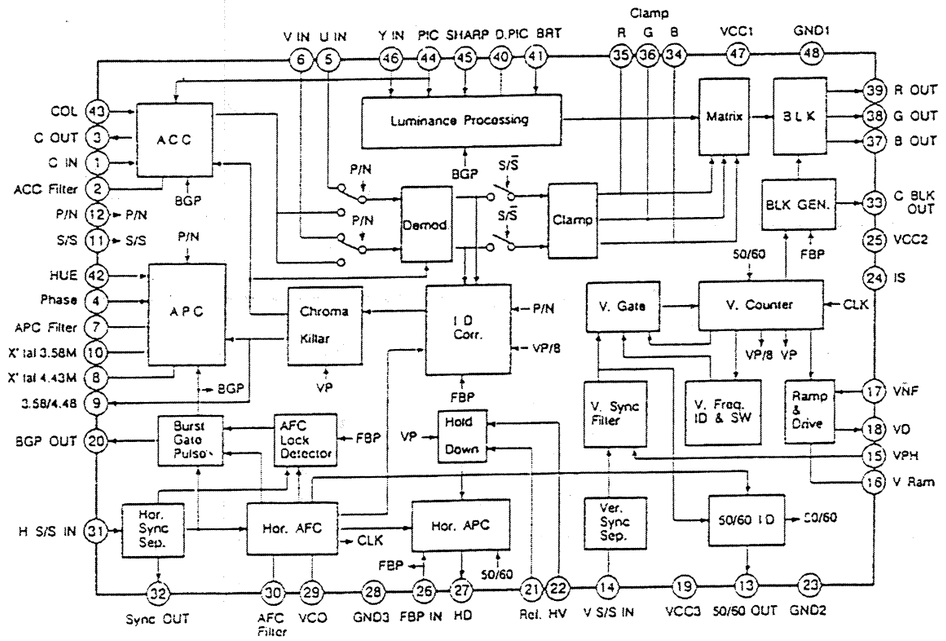
C BOARD

① 1.9 Vp-p (H)	② NTSC 6.1 Vp-p (H)	② PAL/SECAM 5.4 Vp-p (H)
③ NTSC 7.1 Vp-p (H)	③ PAL/SECAM 5.8 Vp-p (H)	④ NTSC 7.4 Vp-p (H)
④ PAL/SECAM 5.6 Vp-p (H)		

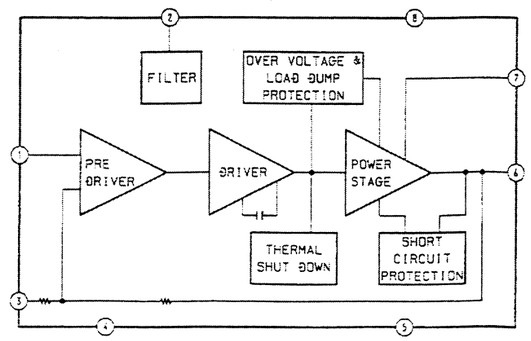
• D Board IC203 CXA1214P



• D Board IC204 CXA1213BS

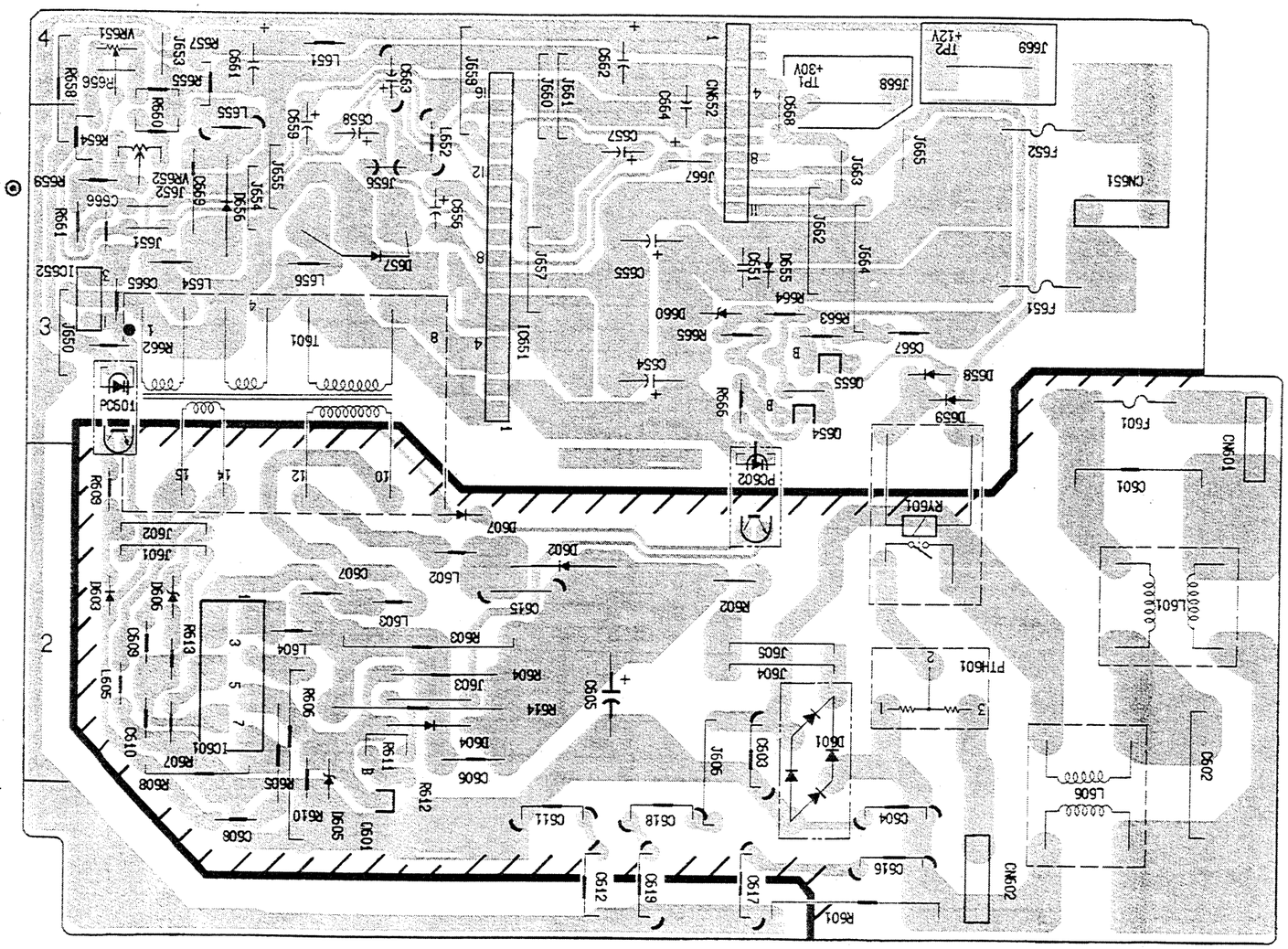


• D Board IC301 μPC1241H



F [POWER SUPPLY]

—F Board—

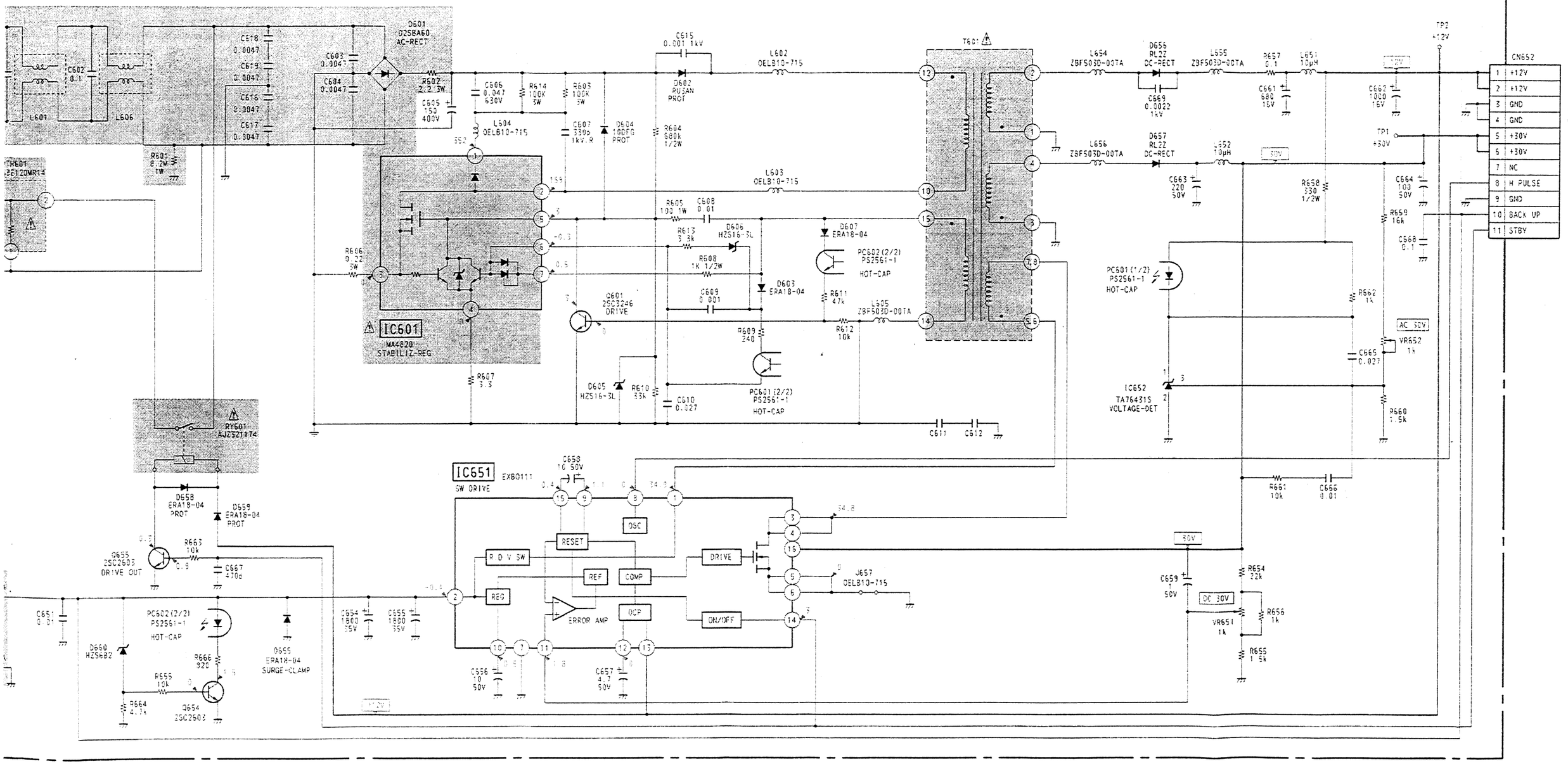


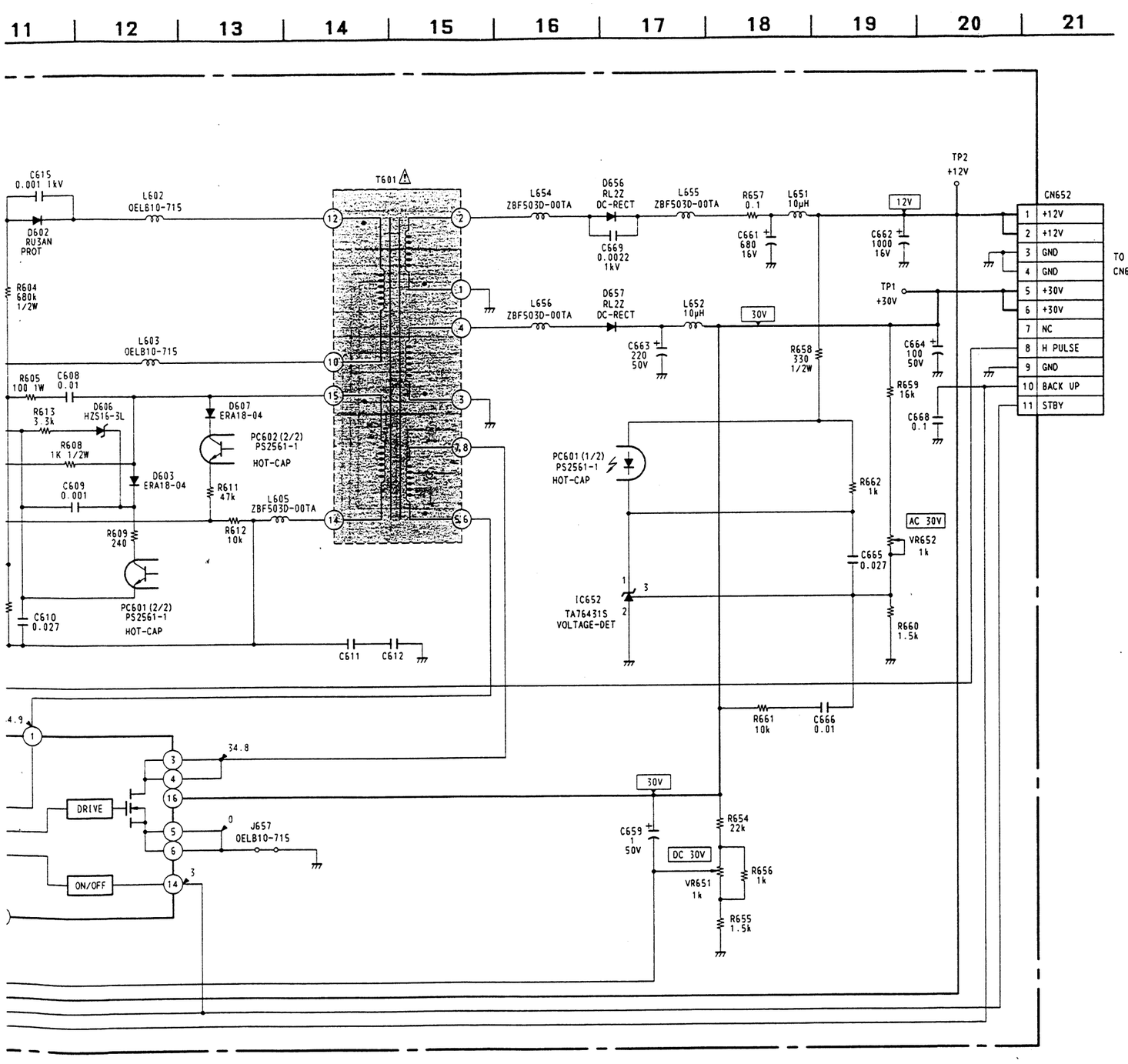
KV-9MD1
RM-827S

KV-9MD1
RM-827S

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

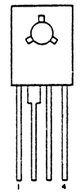
UPPLY)



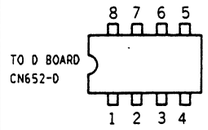


5-4. SEMICONDUCTORS

AN78M09A



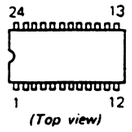
CAT24002P



(Top view)

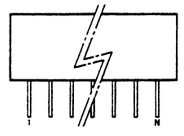
CXA1213BS

CXA1214P



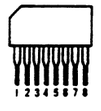
(Top view)

EXB0111

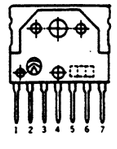


(MARKING SIDE VIEW)
- pin 1~N
- Mt. (one side, both side)

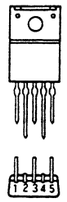
LA7016



LA7830



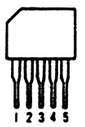
MA4820



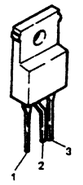
1. GND
2. Vc (ON/OFF)
3. Vo
4. Vo SENSE
5. VIN

M34302M8-612SP

M51953AL

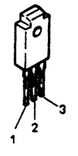


M5201L

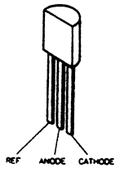


1. VOUT
2. VIN
3. GND

M5278-D05

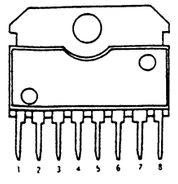


TA76431S



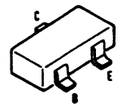
REF ANODE CATHODE

UPC1241H



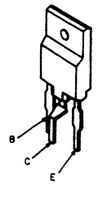
DFD05TE
DTC114ES
DTC144ES
ERA18-04
HZSSC3
HZS581
HZT3302
RL2Z
10DFG
2SA1115
2SC2603

DTC144EK
2SA1235
2SC3052



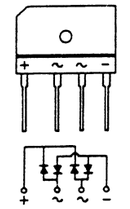
2SC3468

2SC4130

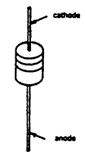


2SD773

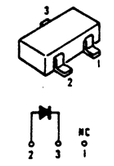
D2SBA60



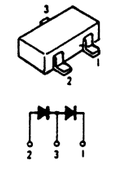
HZS16-3L
HZS62B
RD5.6ES-B2
1SS119



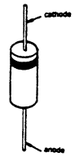
MC2838
RD5.6MB2



MC2840



RU2AM
RU3AM



SECTION 6
EXPLODED VIEW

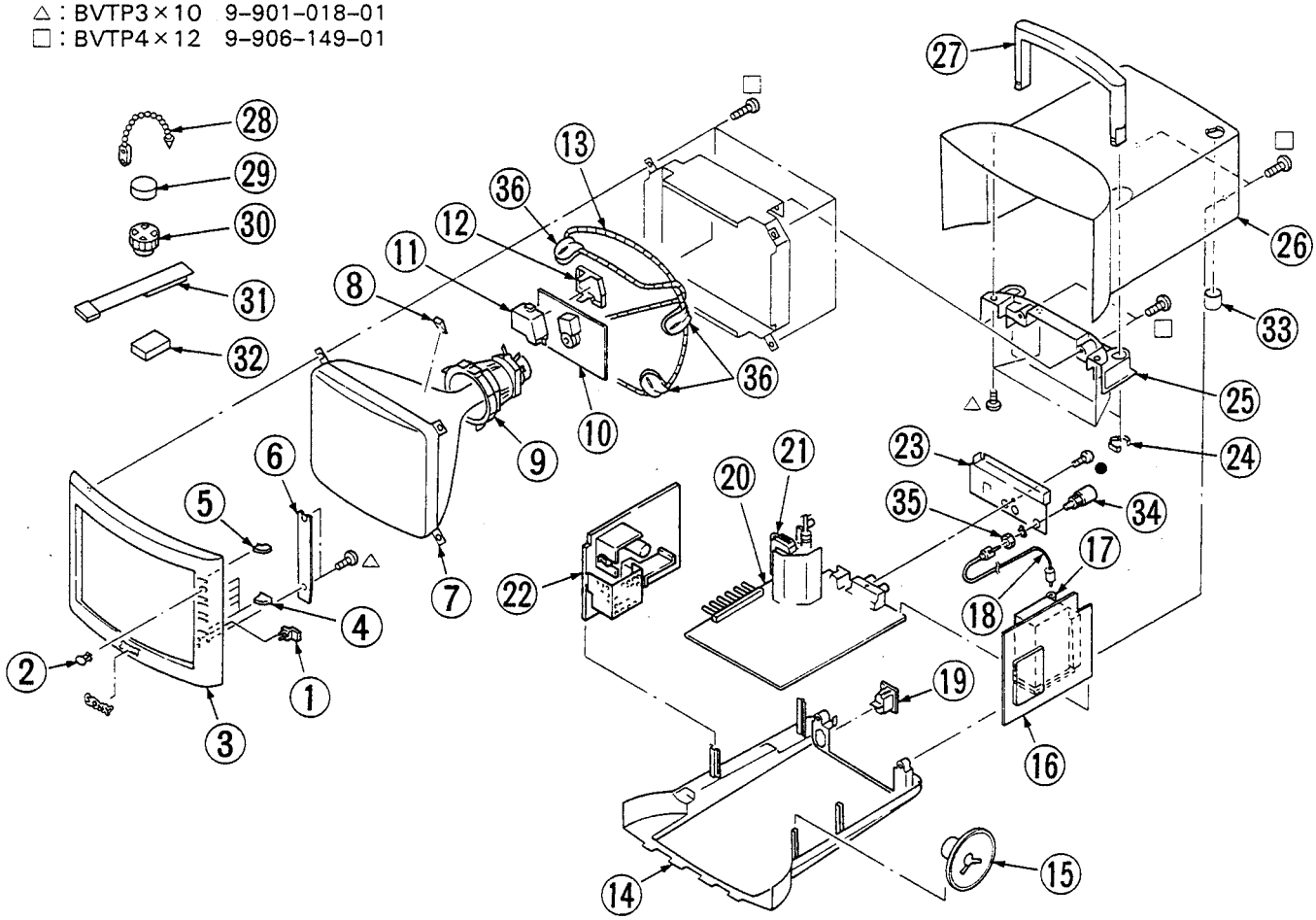
NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are cirtical for safety.
Replace only with part number specified.

7-1. CHASSIS

● : BVTP3×12 9-901-017-01
△ : BVTP3×10 9-901-018-01
□ : BVTP4×12 9-906-149-01



Ref. No.	Part No.	Description	Remark
1	9-906-133-01	LENS-C8	
2	9-901-013-01	LENS-B8	
3	9-906-179-01	ASS'Y-FRONT	
4	9-901-012-01	KNOB-B8	
5	9-906-178-01	ASS'Y-KNOB-A	
6	9-906-511-01	H BOARD, COMPLETE	
7	⚠ 8-737-151-05	CRT (A20JKU10X)	
8	4-309-369-03	SPACER, DY	
9	⚠ 1-451-265-11	D.Y	
10	9-906-752-01	C BOARD, COMPLETE	
11	*4-376-133-11	COVER (MAIN), CV VOL	
12	*4-376-132-11	COVER (REAR LID), CV VOL	
13	⚠ 9-906-158-01	DEGAUSS-COIL	
14	9-906-177-01	ASS'Y-BOTTOM	
15	9-906-157-01	SPEAKER	
16	9-906-510-01	A BOARD, COMPLETE	
17	⚠ 9-906-332-01	TUNER BT-RG321	
18	9-906-159-01	COAXIAL CABLE	

Ref. No.	Part No.	Description	Remark
19	⚠ 9-906-154-01	AC-INLET	
20	9-906-751-01	D BOARD, COMPLETE	
21	⚠ 9-901-523-01	F.B.T MSHIFPS152	
22	9-906-512-01	F BOARD, COMPLETE	
23	9-906-136-01	REAR-PANEL	
24	9-901-011-01	HANDLE-STOPPER	
25	9-906-180-01	ASS'Y-HOLDER	
26	9-906-181-01	ASS'Y-COVER	
27	9-901-010-01	HANDLE8	
28	4-308-870-00	CLIP, LEAD WIRE	
29	1-452-032-00	MAGNET, DISK;10mmφ	
30	1-452-094-00	MAGNET, RATATABLE DISK;15mmφ	
31	X-4308-815-8	PERMALLOY ASSY, CONVERGENCE	
32	1-452-126-11	MAGNET	
33	9-906-129-01	CAP-ANT	
34	9-906-153-01	PAL-RCA CONNECTOR	
35	9-906-156-01	NUT-HEX	
36	9-906-141-01	HOLDER-DGC	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE :

The components identified by shading and mark ⚠ are cirtical for safety.
Replace only with part number specified.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS · MF:μF, PF:μμF
COILS · MMH:mH, UH:μH

Ref. No.	Part No.	Description		Remark
*	9-906-510-01	A BOARD, MOUNTED		
		**********		
		< CAPACITOR >		
C101	9-906-248-01	C-CERAMIC	220PF	50V
C102	9-906-248-01	C-CERAMIC	220PF	50V
C103	9-906-248-01	C-CERAMIC	220PF	50V
C104	9-906-248-01	C-CERAMIC	220PF	50V
C105	9-900-957-01	C-EL	2.2MF	50V
C106	9-906-252-01	C-EL	10MF	16V
C107	9-906-252-01	C-EL	10MF	16V
C108	9-906-254-01	C-CERAMIC	0.001MF	50V
C109	9-906-254-01	C-CERAMIC	0.001MF	50V
C110	9-906-254-01	C-CERAMIC	0.001MF	50V
C111	9-906-248-01	C-CERAMIC	220PF	50V
C112	9-906-248-01	C-CERAMIC	220PF	50V
C113	9-906-254-01	C-CERAMIC	0.001MF	50V
C114	9-906-254-01	C-CERAMIC	0.001MF	50V
C115	9-906-254-01	C-CERAMIC	0.001MF	50V
C118	9-906-262-01	C-CERAMIC	0.1MF	16V
C119	9-906-263-01	C-CERAMIC	0.0047MF	50V
C120	9-906-248-01	C-CERAMIC	220PF	50V
C121	9-906-265-01	C-CERAMIC	0.01MF	50V
C122	9-906-248-01	C-CERAMIC	220PF	50V
C123	9-906-248-01	C-CERAMIC	220PF	50V
C124	9-906-268-01	C-CERAMIC	180PF	50V
C125	9-906-269-01	C-CERAMIC	100PF	50V
C126	9-906-248-01	C-CERAMIC	220PF	50V
C127	9-906-252-01	C-EL	10MF	16V
C128	9-906-272-01	C-CERAMIC	0.001MF	50V
C129	9-906-272-01	C-CERAMIC	0.001MF	50V
C130	9-906-272-01	C-CERAMIC	0.001MF	50V
C131	9-906-275-01	C-CERAMIC	56PF	50V
C132	9-906-276-01	C-CERAMIC	39PF	50V
C133	9-906-277-01	C-CERAMIC	47PF	50V
C134	9-906-278-01	C-CERAMIC	220PF	50V
C135	9-906-279-01	C-CERAMIC	0.01uF	50V
C136	9-906-280-01	C-EL	220MF	6.3V
C137	9-906-280-01	C-EL	220MF	6.3V
C138	9-906-282-01	C-EL	470MF	35V
C139	9-905-150-01	C-PLASTIC	0.022MF	50V
C140	9-906-248-01	C-CERAMIC	220PF	50V
C175	9-904-983-01	C-EL	47MF	16V
C176	9-906-284-01	C-EL	22MF	16V
C177	1-124-006-11	C-EL	10MF	16V
C178	1-124-006-11	C-EL	10MF	16V
C179	9-905-153-01	C-EL	100MF	16V
C180	9-905-153-01	C-EL	100MF	16V
C181	9-906-248-01	C-CERAMIC	220PF	50V
C182	9-900-956-01	C-EL	1MF	50V
C183	9-906-279-01	C-CERAMIC	0.01MF	50V
C184	9-906-287-01	C-PLASTIC	0.1MF	50V
C185	9-906-288-01	C-CERAMIC	100PF	50V
C186	9-906-289-01	C-PLASTIC	0.068MF	50V
C187	9-906-289-01	C-PLASTIC	0.068MF	50V
C188	9-906-291-01	C-PLASTIC	0.22MF	50V
C189	9-906-279-01	C-CERAMIC	0.01MF	50V
C190	9-906-279-01	C-CERAMIC	0.01MF	50V
C191	9-900-957-01	C-EL	2.2MF	50V
C192	9-906-294-01	C-CERAMIC	0.01MF	50V
C193	9-906-295-01	C-PLASTIC	0.47MF	50V
C194	1-124-006-11	C-EL	10MF	16V
C195	1-124-006-11	C-EL	10MF	16V
C196	9-900-957-01	C-EL	2.2MF	50V
C197	1-124-006-11	C-EL	10MF	16V
		< CONNECTOR >		
CN101	9-906-329-01	CONNECTOR		
CN102	9-901-112-01	CONNECTOR		
CN103	9-901-112-01	CONNECTOR		
CN104	9-901-370-01	CONNECTOR		
CN105	9-906-330-01	CONNECTOR		

Ref. No.	Part No.	Description		Remark
		< FILTER >		
CF101	9-906-331-01	OSCILATOR		
		< DIODE >		
D102	9-905-145-01	DIODE	1SS119-14TP	
D103	9-905-145-01	DIODE	1SS119-14TP	
D104	9-906-309-01	DIODE	HZS5C3TD	
D105	9-905-145-01	DIODE	1SS119-14TP	
D106	9-905-145-01	DIODE	1SS119-14TP	
D107	9-905-145-01	DIODE	1SS119-14TP	
D108	9-905-145-01	DIODE	1SS119-14TP	
D109	9-905-145-01	DIODE	1SS119-14TP	
D110	9-906-310-01	DIODE	HZS5B1TD	
D111	9-906-311-01	DIODE	RD5.6ESB2	
D112	9-905-145-01	DIODE	1SS119-14TP	
D113	9-906-311-01	DIODE	RD5.6ESB2	
D114	9-905-145-01	DIODE	1SS119-14TP	
D115	9-905-145-01	DIODE	1SS119-14TP	
D116	9-905-145-01	DIODE	1SS119-14TP	
D117	9-905-145-01	DIODE	1SS119-14TP	
D118	9-905-145-01	DIODE	1SS119-14TP	
		< IC >		
IC101	9-906-313-01	IC	M34302M8-612SP	
IC102	9-906-314-01	IC	M15953AL	
IC103	9-906-315-01	IC	CAT24C02P	
IC104	9-906-316-01	IC	M5278D05	
IC180	9-906-317-01	IC	M5201LD	
IC181	9-906-318-01	IC	AN78M09R	
IC182	8-759-157-40	IC	HZT33-02-TE	
		< COIL >		
L101	9-906-322-01	COIL		
L102	1-407-169-99	COIL		
L103	9-906-323-01	COIL		
L104	9-906-323-01	COIL		
L105	9-906-323-01	COIL		
L106	9-906-323-01	COIL		
L107	9-906-323-01	COIL		
		< TRANSISTOR >		
Q101	9-906-296-01	TRANSISTOR	2SA1115E	
Q102	9-906-297-01	TRANSISTOR	DTC144ES-TP	
Q103	9-906-298-01	TRANSISTOR	2SC2603E-TP	
Q104	9-906-297-01	TRANSISTOR	DTC114ES-TP	
Q181	9-906-298-01	TRANSISTOR	2SC2603E-TP	

Ref. No.	Part No.	Description		Remark
Q182	9-906-298-01	TRANSISTOR	2SC2603E-TP	
Q183	9-906-296-01	TRANSISTOR	2SA1115E	
Q184	9-906-296-01	TRANSISTOR	2SA1115E	
Q185	9-906-296-01	TRANSISTOR	2SA1115E	
Q186	9-906-298-01	TRANSISTOR	2SC2603E-TP	
Q187	9-906-298-01	TRANSISTOR	2SC2603E-TP	
Q188	9-906-297-01	TRANSISTOR	DTC144ES-TP	
Q189	9-906-297-01	TRANSISTOR	DTC144ES-TP	
		< RESISTOR >		
R101	9-906-183-01	R-CARBON	10K	1/4W
R102	9-906-183-01	R-CARBON	10K	1/4W
R103	9-906-183-01	R-CARBON	10K	1/4W
R104	9-906-183-01	R-CARBON	10K	1/4W
R105	9-906-187-01	R-CARBON	2.2K	1/4W
R106	9-906-187-01	R-CARBON	2.2K	1/4W
R107	9-906-187-01	R-CARBON	2.2K	1/4W
R108	9-906-187-01	R-CARBON	2.2K	1/4W
R109	9-906-191-01	R-CARBON	180K	1/4W
R110	9-906-192-01	R-CARBON	24K	1/4W
R111	9-906-193-01	R-CARBON	47K	1/4W
R112	9-906-194-01	R-CARBON	220K	1/4W
R113	9-906-195-01	R-CARBON	27K	1/4W
R114	9-906-183-01	R-CARBON	10K	1/4W
R115	9-906-197-01	R-CARBON	470K	1/4W
R116	1-247-417-11	R-CARBON	1K	1/4W
R117	9-906-198-01	R-CARBON	220	1/4W
R118	9-906-199-01	R-CARBON	2.7K	1/4W
R119	9-906-200-01	R-CARBON	1.8K	1/4W
R120	9-906-201-01	R-CARBON	470	1/4W
R121	9-906-201-01	R-CARBON	470	1/4W
R122	9-906-203-01	R-CARBON	22K	1/4W
R123	9-906-187-01	R-CARBON	2.2K	1/4W
R124	9-906-187-01	R-CARBON	2.2K	1/4W
R125	1-247-417-11	R-CARBON	1K	1/4W
R126	1-247-417-11	R-CARBON	1K	1/4W
R127	1-247-417-11	R-CARBON	1K	1/4W
R128	1-247-417-11	R-CARBON	1K	1/4W
R129	1-247-417-11	R-CARBON	1K	1/4W
R130	1-247-417-11	R-CARBON	1K	1/4W
R131	9-906-183-01	R-CARBON	10K	1/4W
R132	9-906-207-01	R-CARBON	5.6K	1/4W
R133	9-906-183-01	R-CARBON	10K	1/4W
R134	9-906-183-01	R-CARBON	10K	1/4W
R135	9-906-183-01	R-CARBON	10K	1/4W
R136	1-247-417-11	R-CARBON	1K	1/4W
R137	9-906-183-01	R-CARBON	10K	1/4W
R138	9-906-187-01	R-CARBON	2.2K	1/4W
R139	1-249-427-11	R-CARBON	6.8K	1/4W

A D

Ref. No.	Part No.	Description		Remark
R140	9-906-203-01	R-CARBON	22K	1/4W
R141	9-906-194-01	R-CARBON	220K	1/4W
R142	9-906-187-01	R-CARBON	2.2K	1/4W
R143	9-906-187-01	R-CARBON	2.2K	1/4W
R144	9-906-187-01	R-CARBON	2.2K	1/4W
R145	9-906-218-01	R-CARBON	390	1/4W
R146	9-906-219-01	R-CARBON	1.5K	1/4W
R147	9-906-183-01	R-CARBON	10K	1/4W
R148	9-906-187-01	R-CARBON	2.2K	1/4W
R149	1-247-417-11	R-CARBON	1K	1/4W
R150	1-247-417-11	R-CARBON	1K	1/4W
R151	1-249-441-11	R-CARBON	100K	1/4W
R171	9-906-183-01	R-CARBON	10K	1/4W
R172	9-906-223-01	R-CARBON	9.1K	1/4W
R173	9-906-224-01	R-CARBON	20K	1/4W
R174	9-906-225-01	R-CARBON	33K	1/4W
R175	9-906-226-01	R-CARBON	4.7K	1/4W
R176	9-906-203-01	R-CARBON	22K	1/4W
R177	9-906-228-01	R-CARBON	12K	1/4W
R178	9-906-193-01	R-CARBON	47K	1/4W
R179	9-906-193-01	R-CARBON	47K	1/4W
R180	1-247-417-11	R-CARBON	1K	1/4W
R181	9-906-203-01	R-CARBON	22K	1/4W
R182	9-906-203-01	R-CARBON	22K	1/4W
R183	9-906-203-01	R-CARBON	22K	1/4W
R184	9-906-203-01	R-CARBON	22K	1/4W
R185	9-906-235-01	R-CARBON	330K	1/4W
R186	9-906-236-01	R-CARBON	1.8K	1/4W
R187	9-906-183-01	R-CARBON	10K	1/4W
R188	9-906-183-01	R-CARBON	10K	1/4W
R189	9-906-183-01	R-CARBON	10K	1/4W
R190	9-906-225-01	R-CARBON	33K	1/4W
R191	9-906-228-01	R-CARBON	12K	1/4W
R192	9-906-242-01	R-CARBON	18K	1/4W
R193	9-906-243-01	R-CARBON	1.2K	1/4W
R194	9-906-236-01	R-CARBON	1.8K	1/4W
R195	9-906-187-01	R-CARBON	2.2K	1/4W
R196	1-247-417-11	R-CARBON	1K	1/4W
R197	9-906-226-01	R-CARBON	4.7K	1/4W
R198	9-906-247-01	R-METAL	22K	1W
R199	1-247-417-11	R-CARBON	1K	1/4W

< TUNER >

TU181	1-693-120-11	TUNER (BT-RG321)	

Ref. No.	Part No.	Description		Remark
*	9-906-751-01	D BOARD MOUNTED		
		**********		
		< CAPACITOR >		
C201	9-905-153-01	C-EL	100MF	16V
C203	1-164-232-11	CHIP-C	0.01MF	50V
C204	9-905-153-01	C-EL	100MF	16V
C205	9-906-538-01	CHIP-C	0.1MF	25V
C206	9-905-153-01	C-EL	100MF	16V
C207	9-904-992-01	CHIP-C	220PF	50V
C208	9-906-538-01	CHIP-C	0.1MF	25V
C209	9-906-540-01	CHIP-C	470PF	50V
C210	9-906-541-01	CHIP-C	120PF	50V
C211	1-163-077-00	CHIP-C	0.1MF	50V
C212	9-906-542-01	CHIP-C	75PF	50V
C213	9-906-543-01	CHIP-C	220PF	50V
C214	9-906-541-01	CHIP-C	120PF	50V
C215	1-164-232-11	CHIP-C	0.001MF	50V
C216	9-906-545-01	CHIP-C	100PF	50V
C217	9-906-546-01	CHIP-C	0.0056MF	50V
C218	9-900-956-01	C-EL	1MF	50V
C219	9-906-544-01	CHIP-C	120PF	50V
C220	9-906-538-01	CHIP-C	0.1MF	25V
C221	9-906-549-01	CHIP-C	27PF	50V
C222	9-906-542-01	CHIP-C	75PF	50V
C223	9-906-538-01	CHIP-C	0.1MF	25V
C224	9-906-552-01	C-EL	0.22MF	50V
C225	9-900-956-01	C-EL	1MF	50V
C226	9-900-956-01	C-EL	1MF	50V
C227	9-900-956-01	C-EL	1MF	50V
C228	9-900-956-01	C-EL	1MF	50V
C229	9-906-553-01	C-EL	4.7MF	50V
C230	9-906-538-01	CHIP-C	0.1MF	25V
C231	9-906-287-01	C-PLASTIC	0.1MF	50V
C232	9-906-287-01	C-PLASTIC	0.1MF	50V
C233	9-904-989-01	C-PLASTIC	0.047MF	50V
C235	9-906-557-01	CHIP-C	0.022MF	50V
C236	9-906-538-01	CHIP-C	0.1MF	25V
C237	9-904-981-01	CHIP-C	47PF	50V
C238	9-906-559-01	C-EL	10MF	16V
C239	9-906-559-01	C-EL	10MF	16V
C240	9-906-561-01	CHIP-C	0.0068MF	50V
C241	9-906-562-01	C-PLASTIC	0.47MF	50V
C242	9-900-950-01	C-PLASTIC	0.15MF	50V
C243	9-905-057-01	CHIP-C	0.01MF	50V
C244	9-906-563-01	CHIP-C	0.01MF	50V
C245	9-906-564-01	C-EL	0.22MF	50V
C246	1-164-232-11	CHIP-C	0.01MF	50V
C247	9-906-565-01	C-EL	22MF	16V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
C248	9-906-566-01	C-EL	0.47MF	50V
C249	9-905-153-01	C-EL	100MF	16V
C250	9-900-957-01	C-EL	2.2MF	50V
C251	9-906-538-01	CHIP-C	0.1MF	25V
C252	9-900-956-01	C-EL	1MF	50V
C253	9-906-538-01	CHIP-C	0.1MF	25V
C254	9-905-153-01	C-EL	100MF	16V
C255	9-906-369-01	CHIP-C	18PF	50V
C256	9-904-981-01	CHIP-C	470PF	50V
C257	9-904-981-01	CHIP-C	470PF	50V
C258	9-904-981-01	CHIP-C	470PF	50V
C260	9-906-538-01	CHIP-C	0.1MF	25V
C261	9-906-538-01	CHIP-C	0.1MF	25V
C262	9-905-153-01	C-EL	100MF	16V
C273	9-905-153-01	C-EL	100MF	16V
C274	9-904-981-01	CHIP-C	47PF	50V
C301	9-906-538-01	CHIP-C	0.1MF	25V
C302	9-906-573-01	C-EL	470MF	16V
C303	9-904-983-01	C-EL	47MF	16V
C304	9-900-957-01	C-EL	2.2MF	50V
C305	1-164-161-11	CHIP-C	0.0022MF	50V
C306	9-905-153-01	C-EL	100MF	16V
C307	9-904-983-01	C-EL	47MF	16V
C308	1-124-006-11	C-EL	10MF	16V
C801	9-906-574-01	C-TANTAL	3.3MF	25V
C802	9-906-575-01	C-EL	3.3MF	50V
C803	9-906-559-01	C-EL	10MF	16V
C804	9-906-577-01	C-EL	1000MF	25V
C805	9-906-578-01	C-EL	100MF	35V
C806	9-906-579-01	C-EL	330MF	50V
C807	9-905-139-01	C-CERAMIC	470PF	500V
C808	9-906-580-01	C-EL	47MF	35V
C809	9-906-581-01	C-POLYSTOR	2.7MF	100V
C810	1-163-003-11	CHIP-C	330PF	50V
C811	9-905-154-01	CHIP-C	0.033MF	50V
C812 ⚠	9-906-582-01	C-PLASTIC	0.012MF	630V
C813 ⚠	9-906-583-01	C-PLASTIC	0.0056MF	630V
C814 ⚠	9-906-584-01	C-PLASTIC	0.39MF	50V
C815	9-905-139-01	C-CERAMIC	470PF	500V
C816	9-906-585-01	C-PLASTIC	0.0047MF	50V
C817	9-906-585-01	C-PLASTIC	0.0047MF	50V
C818	9-905-153-01	C-EL	100MF	16V
C819	9-905-150-01	C-PLASTIC	0.022MF	50V
C820 ⚠	9-905-151-01	C-EL	22MF	160V
C821	1-130-857-00	C-PLASTIC	0.047MF	100V
C822	9-906-587-01	CHIP-C	100PF	50V
C823	9-900-956-01	C-EL	1MF	50V
C824	9-906-579-01	C-EL	330MF	50V
C827	9-906-589-01	CHIP-C	220PF	50V

Ref. No.	Part No.	Description		Remark
		< CONNECTOR >		
CN101	9-906-750-01	CONNECTOR		
CN201	9-901-493-01	CONNECTOR		
CN202	9-901-492-01	CONNECTOR		
CN203	9-901-492-01	CONNECTOR		
CN301	1-564-704-11	CONNECTOR		
CN652D	9-906-638-01	CONNECTOR		
CN701D	1-564-708-11	CONNECTOR		
CN702D	9-906-330-01	CONNECTOR		
CN801	9-906-640-01	CONNECTOR		
		< DIODE >		
D201	8-719-105-82	DIODE	RD5.1MB2(T1B)	
D202	8-719-105-91	DIODE	RD5.6MB2(T1B)	
D203	8-719-801-78	DIODE	MC2838-T1	
D204	9-905-160-01	DIODE	ERA18-04V3	
D205	9-905-160-01	DIODE	ERA18-04V3	
D801	9-905-160-01	DIODE	ERA18-04V3	
D803	9-906-605-01	DIODE	MC2840-T12-1	
D804 ⚠	8-719-801-78	DIODE	MC2838-T1	
D805	9-900-929-01	DIODE	DFD05TE-BT	
D806	9-906-606-01	DIODE	RU2AM LF-A5	
D807 ⚠	9-905-160-01	DIODE	ERA18-04V3	
D808	8-719-801-78	DIODE	MC2838-T1	
		< DELAY LINE >		
DL201	9-906-622-01	1H-DL		
		< IC >		
IC201	9-900-834-01	IC	LA7016	
IC202	9-906-607-01	IC	AN78M09R	
IC203	9-906-608-01	IC	CXA1214P	
IC204	9-906-609-01	IC	CXA1213BS	
IC301	9-900-969-01	IC	UPC1241H	
IC801 ⚠	9-906-610-01	IC	LA7830	
		< IF BLOCK >		
IF181	9-906-749-01	VIF		
		< JACK >		
J283	1-216-296-00	CHIP-J	0 1/8W	
J284	9-900-863-01	CHIP-J	0 1/10W	
J285	1-216-296-00	CHIP-J	0 1/8W	
J286	9-900-863-01	CHIP-J	0 1/10W	
J287	1-216-296-00	CHIP-J	0 1/8W	
J288	9-900-863-01	CHIP-J	0 1/10W	
J289	1-216-296-00	CHIP-J	0 1/8W	

D

The components identified by shading and mark ⚠ are cirtical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
J290	9-900-863-01	CHIP-J 0	1/10W	
J291	1-216-296-00	CHIP-J 0	1/8W	
J292	1-216-296-00	CHIP-J 0	1/8W	
J293	1-216-296-00	CHIP-J 0	1/8W	
J294	9-900-863-01	CHIP-J 0	1/10W	
J297	9-900-863-01	CHIP-J 0	1/10W	
J298	1-216-296-00	CHIP-J 0	1/8W	
J299	9-900-863-01	CHIP-J 0	1/10W	
J300	1-216-296-00	CHIP-J 0	1/8W	
PJ201	9-900-903-01	PIN-JACK		
PJ301	1-563-951-11	EARPHONE-JACK		
PJ601	9-905-206-01	DC-JACK		
		< COIL >		
L201	9-906-614-01	COIL		
L202	9-906-615-01	COIL		
L203	9-906-616-01	COIL		
L204	9-906-616-01	COIL		
L205	9-906-615-01	COIL		
L206	9-906-619-01	COIL		
L802	9-906-620-01	COIL-CHOKE		
L803	9-906-621-01	L-CHOKE		
L804	1-408-403-00	COIL-PEAKIG		
L805	1-410-971-11	COIL		
L806	9-901-513-01	COIL-LINEAR		
		< TRANSISTOR >		
Q201	9-906-590-01	TRNSISTOR	2SC3052E-T1	
Q202	9-906-590-01	TRNSISTOR	2SC3052E-T1	
Q204	9-905-016-01	TRNSISTOR	DTC144EK-T146	
Q205	9-905-016-01	TRNSISTOR	DTC144EK-T146	
Q206	9-905-016-01	TRNSISTOR	DTC144EK-T146	
Q207	9-906-590-01	TRNSISTOR	2SC3052E-T1	
Q208	9-906-383-01	TRNSISTOR	2SA1235E-T1	
Q209	9-906-382-01	TRNSISTOR	2SC3052E-T1	
Q210	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q211	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q212	9-906-016-01	TRNSISTOR	DTC144EK-T146	
Q213	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q214	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q215	9-906-595-01	TRNSISTOR	2SA1235E-T1	
Q216	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q217	9-906-595-01	TRNSISTOR	2SC3052E-T1	
Q301	9-905-015-01	TRNSISTOR	2SD773-U5	
Q801	9-905-016-01	TRNSISTOR	DTC144EK-T146	
Q802	9-905-016-01	TRNSISTOR	DTC144EK-T146	
Q803	9-905-601-01	TRNSISTOR	2SC3052E-T1	
Q804 ⚠	9-906-603-01	TRNSISTOR	2SC4130(LF603)	

Ref. No.	Part No.	Description		Remark
Q805	9-906-383-01	TRNSISTOR	2SA1235E-T1	
		< RESISTOR >		
R201	9-906-513-01	CHIP-R	82	1/10W
R202	9-906-374-01	CHIP-R	1K	1/10W
R203	1-216-053-00	CHIP-R	1.5K	1/10W
R204	1-216-065-00	CHIP-R	3K	1/10W
R205	9-905-039-01	CHIP-R	8.2K	1/10W
R206	1-216-061-00	CHIP-R	3.3K	1/10W
R207	9-905-037-01	CHIP-R	68	1/10W
R208	1-216-061-00	CHIP-R	3.3K	1/10W
R210	9-905-033-01	CHIP-R	10K	1/10W
R211	9-905-033-01	CHIP-R	10K	1/10W
R212	1-216-057-00	CHIP-R	2.2K	1/10W
R213	9-905-515-01	CHIP-R	220	1/8W
R214	9-906-374-01	CHIP-R	1K	1/10W
R215	9-906-374-01	CHIP-R	1K	1/10W
R217	1-216-057-00	CHIP-R	2.2K	1/10W
R218	1-216-057-00	CHIP-R	2.2K	1/10W
R220	1-216-053-00	CHIP-R	1.5K	1/10W
R221	1-216-119-00	CHIP-R	820K	1/10W
R225	9-906-518-01	CHIP-R	270	1/8W
R226	9-905-034-01	CHIP-R	180	1/10W
R227	1-216-039-00	CHIP-R	390	1/10W
R228	1-216-057-00	CHIP-R	2.2K	1/10W
R229	9-905-083-01	CHIP-R	1M	1/10W
R230	1-216-039-00	CHIP-R	390	1/10W
R231	1-216-057-00	CHIP-R	2.2K	1/10W
R234	9-906-519-01	CHIP-R	680K	1/10W
R235	1-216-037-00	CHIP-R	330	1/10W
R236	1-216-037-00	CHIP-R	330	1/10W
R237	1-216-037-00	CHIP-R	330	1/10W
R238	9-905-034-01	CHIP-R	180	1/10W
R239	1-216-065-00	CHIP-R	4.7K	1/10W
R240	1-216-041-00	CHIP-R	470	1/10W
R241	1-216-037-00	CHIP-R	330	1/10W
R242	1-216-067-00	CHIP-R	5.6K	1/10W
R243	1-216-113-00	CHIP-R	470K	1/10W
R244	9-906-520-01	R-CARBON	1.1K	1/4W
R245	9-900-860-01	CHIP-R	27K	1/10W
R246	1-216-067-00	CHIP-R	5.6K	1/10W
R247	9-905-039-01	CHIP-R	8.2K	1/10W
R249	9-906-521-01	CHIP-R	3.3M	1/10W
R250	1-216-039-00	CHIP-R	390	1/10W
R251	1-216-097-00	CHIP-R	100K	1/10W
R252	1-216-089-00	CHIP-R	47K	1/10W
R253	1-216-039-00	CHIP-R	390	1/10W
R254	9-906-374-01	CHIP-R	1K	1/10W

The components identified by shading and mark ⚠ are cirtical for safety.
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Ref. No.	Part No.	Description		Remark
R255	9-905-032-01	CHIP-R	22K	1/10W
R256	9-905-033-01	CHIP-R	10K	1/10W
R257	1-216-067-00	CHIP-R	5.6K	1/10W
R258	9-905-038-01	CHIP-R	1.5K	1/8W
R259	1-216-085-00	CHIP-R	33K	1/10W
R260	1-216-089-00	CHIP-R	47K	1/10W
R262	9-900-865-01	CHIP-R	100	1/10W
R263	9-905-033-01	CHIP-R	10K	1/10W
R265	1-216-041-00	CHIP-R	470	1/10W
R268	1-216-053-00	CHIP-R	1.5K	1/10W
R269	1-216-089-00	CHIP-R	47K	1/10W
R270	1-216-105-00	CHIP-R	220K	1/10W
R271	9-906-523-01	CHIP-R	220K	1/8W
R272	1-216-053-00	CHIP-R	1.5K	1/10W
R273	1-216-037-00	CHIP-R	330	1/10W
R301	1-216-029-00	CHIP-R	150	1/10W
R302	1-216-029-00	CHIP-R	150	1/10W
R303	1-216-057-00	CHIP-R	2.2K	1/10W
R304	9-905-032-01	CHIP-R	22K	1/10W
R305	9-906-374-01	CHIP-R	1K	1/10W
R801	1-216-085-00	CHIP-R	33K	1/10W
R802	1-216-043-00	CHIP-R	560	1/10W
R803	9-905-033-01	CHIP-R	10K	1/10W
R804	9-905-112-01	CHIP-R	15K	1/10W
R805	9-905-039-01	CHIP-R	8.2K	1/10W
R806	1-216-067-00	CHIP-R	5.6K	1/10W
R807	9-906-525-01	R-METAL	5.6	
R809	9-905-033-01	CHIP-R	10K	1/10W
R810	9-906-526-01	CHIP-R	22K	1/8W
R811	9-906-198-01	R-CARBON	220	1/4W
R812	9-906-198-01	R-CARBON	220	1/4W
R813	9-906-529-01	R-CARBON	330	1/4W
R814	9-905-100-01	R-FUSE	100	1/2W
R815	9-905-099-01	R-FUSE	27	1/2W
R816	9-906-374-01	CHIP-R	1K	1/10W
R817	1-216-198-00	CHIP-R	1K	1/8W
R818	⚠ 9-905-113-01	R-FUSE	4.7	1/2W
R819	1-216-037-00	CHIP-R	330	1/10W
R820	9-906-531-01	R-CARBON	560	1/4W
R821	1-126-033-00	CHIP-R	220	1/10W
R822	9-905-119-01	CHIP-R	3.9K	1/10W
R823	9-905-098-01	R-METAL	10	
R824	9-906-532-01	R-FUSE	0.75	1/2W
R825	9-905-033-01	CHIP-R	10K	1/10W
R826	9-905-033-01	CHIP-R	10K	1/10W
R827	9-906-533-01	CHIP-R	82K	1/10W
R828	9-900-858-01	CHIP-R	12K	1/10W
R829	9-906-374-01	CHIP-R	1K	1/10W
R830	9-906-535-01	CHIP-R	22K	1/8W
R831	9-906-536-01	R-METAL	560	2W
R832	1-216-061-00	CHIP-R	3.3K	1/10W
R833	9-905-033-01	CHIP-R	10K	1/10W
R834	1-126-033-00	CHIP-R	220	1/10W
R835	9-906-537-01	CHIP-R	51K	1/10W

< SWITCH >

SW201	9-906-631-01	SW
SW202	9-906-631-01	SW
SW203	9-906-631-01	SW
SW204	9-906-631-01	SW
SW205	9-906-631-01	SW
SW206	9-906-631-01	SW
SW207	9-906-637-01	SW
SW801	9-900-935-01	SW-LEVER

< TRANSFORMER >

T201	9-906-623-01	TRANCE-CHROMA
T801	9-905-200-01	HDT
T802	⚠ 9-901-523-01	F.B.T

< TRIM >

VC201	9-906-624-01	TRIMER
VL801	9-901-525-01	COIL-SIZE

< VARIABLE RESISTOR >

VR201	9-906-625-01	R-SEMX 47KΩ
VR202	9-906-625-01	R-SEMX 47KΩ
VR203	9-906-627-01	R-SEMX 470Ω
VR801	1-238-009-01	R-SEMX 220Ω
VR802	9-906-628-01	R-SEMX 2.2KΩ

< CRYSTAL >

X201	9-906-611-01	OSCILLATOR
X202	9-906-612-01	OSCILLATOR
X203	9-906-613-01	OSCILLATOR

< FILTER >

YCM201	9-906-629-01	FILTER
YCM202	9-906-630-01	FILTER

C F

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
*	9-906-752-01	C BOARD, MOUNTED **********		
		< CAPACITOR >		
C701	9-906-736-01	C-CERAMIC	220PF	50V
C702	9-906-736-01	C-CERAMIC	220PF	50V
C703	9-906-736-01	C-CERAMIC	220PF	50V
C704	1-164-143-11	C-CERAMIC	0.01MF	500V
C705	9-906-739-01	C-CERAMIC	680PF	2KV
C706	9-906-740-01	C-CERAMIC	0.0047MF	2KV
		< CONNECTOR >		
CN701C	1-564-708-11	CONNECTOR		
CN702C	9-906-745-01	CONNECTOR		
		< SPARK GAP >		
G701	9-905-071-01	GAP, SPARK		
		< COIL >		
L701	9-906-744-01	COIL-PEAKING		
		< TRANSISTOR >		
Q701	9-906-741-01	TRNSISTOR	2SC3468-D/E/F	
Q702	9-906-741-01	TRNSISTOR	2SC3468-D/E/F	
Q703	9-906-741-01	TRNSISTOR	2SC3468-D/E/F	
		< RESISTOR >		
R701	9-906-724-01	R-CARBON	100	1/4W
R702	9-906-724-01	R-CARBON	100	1/4W
R703	9-906-724-01	R-CARBON	100	1/4W
R704	9-906-226-01	R-CARBON	4.7K	1/4W
R705	9-906-728-01	R-CARBON	390	1/4W
R706	9-906-728-01	R-CARBON	390	1/4W
R707	9-906-226-01	R-CARBON	4.7K	1/4W
R708	9-906-731-01	R-CARBON	560	1/4W
R709	9-906-226-01	R-CARBON	4.7K	1/4W
R710	9-906-733-01	R-METAL	15K	2W
R711	9-906-733-01	R-METAL	15K	2W
R712	9-906-733-01	R-METAL	15K	2W
R713	9-900-915-01	R-SOLID	2.2K	1/2W
R714	9-900-916-01	R-SOLID	220K	1/2W
R715	9-900-914-01	R-SOLID	1M	1/2W
R716	9-900-915-01	R-SOLID	2.2K	1/2W
R717	9-900-915-01	R-SOLID	2.2K	1/2W
R718	9-900-913-01	R-SOLID	100K	1/2W

Ref. No.	Part No.	Description		Remark
		< JACK >		
S701	⚠ 1-562-869-41	CRT-SOCKET		
		< VARIABLE RESISTOR >		
VR701	1-238-546-11	R-SEMX 4.7K		
VR702	1-238-546-11	R-SEMX 4.7K		
VR703	1-238-546-11	R-SEMX 4.7K		
VR704	1-238-543-11	R-SEMX 470Ω		
VR705	1-238-543-11	R-SEMX 470Ω		
VR706	1-230-164-21	R-SEMX 55MB		
**********				
*	9-906-512-01	F BOARD, MOUNTED **********		
		< CAPACITOR >		
C601	⚠ 1-136-548-11	C-PLASTIC	0.1MF	250V
C602	⚠ 1-136-548-11	C-PLASTIC	0.1MF	250V
C603	⚠ 9-906-423-01	C-CERAMIC	0.0047MF	
C604	⚠ 9-906-423-01	C-CERAMIC	0.0047MF	
C605	9-906-425-01	C-EL	150MF	400V
C606	9-906-426-01	C-PLASTIC	0.047MF	
C607	9-905-149-01	C-CERAMIC	470MF	1KV
C608	9-906-427-01	C-PLASTIC	0.01MF	50V
C609	9-906-428-01	C-PLASTIC	0.001MF	50V
C610	9-906-429-01	C-PLASTIC	0.027MF	50V
C611	9-906-430-01	C-CERAMIC	0.002MF	
C612	9-906-430-01	C-CERAMIC	0.002MF	
C615	9-905-148-01	C-CERAMIC	0.001MF	1KV
C616	⚠ 9-906-423-01	C-CERAMIC	0.0047MF	
C617	⚠ 9-906-432-01	C-CERAMIC	0.0047MF	
C618	⚠ 9-906-432-01	C-CERAMIC	0.0047MF	
C619	⚠ 9-906-432-01	C-CERAMIC	0.0047MF	
C651	9-906-436-01	C-CERAMIC	0.01MF	50V
C654	9-905-128-01	C-EL	1800MF	35V
C655	9-905-128-01	C-EL	1800MF	35V
C656	9-906-437-01	C-EL	10MF	50V
C657	9-906-438-01	C-EL	4.7MF	50V
C658	9-906-437-01	C-EL	10MF	50V
C659	9-906-440-01	C-EL	1MF	50V
C660	9-906-441-01	C-CERAMIC	0.0022MF	1KV
C661	1-124-534-11	C-EL	680MF	16V
C662	9-906-442-01	C-EL	1000MF	16V
C663	1-126-371-51	C-EL	220MF	50V
C664	9-906-443-01	C-EL	100MF	16V
C665	9-906-444-01	C-PLASTIC	0.027MF	50V
C666	9-906-445-01	C-PLASTIC	0.01MF	50V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
C667	9-906-446-01	C-CERAMIC	470PF	50V
C668	9-906-447-01	C-CERAMIC	0.1MF	50V
C669	9-906-448-01	C-CERAMIC	0.0022MF	1KV
		< CONNECTOR >		
CN601	⚠ 9-901-298-01	CONNECTOR		
CN602	9-901-297-01	CONNECTOR		
CN651	9-906-477-01	CONNECTOR		
CN652	9-906-478-01	CONNECTOR		
		< DIODE >		
D601	⚠ 9-906-472-01	DIODE	D2SBA60	
D602	9-906-473-01	DIODE	RU3AMLF-B2	
D603	9-905-160-01	DIODE	ERA18-04V3	
D604	9-906-474-01	DIODE	10DF6-TA2B2	
D605	9-906-475-01	DIODE	HZS16-3LTD	
D606	9-906-475-01	DIODE	HZS16-3LTD	
D607	9-905-160-01	DIODE	ERA18-04V3	
D655	9-905-160-01	DIODE	ERA18-04V3	
D656	9-906-449-01	DIODE	RL2ZLFB2(013-202)	
D657	9-906-450-01	DIODE	RL22LFB2(013-202)	
D658	9-905-160-01	DIODE	ERA18-04V3	
D659	9-905-160-01	DIODE	ERA18-04V3	
D660	9-906-451-01	DIODE	HZS6B2-TD	
		< FUSE >		
F601	⚠ 9-906-458-01	BET 250V 3.15A		
	9-905-141-01	FUSE-CLIP		
F651	⚠ 9-906-459-01	BET 250V 5A		
	9-905-141-01	FUSE-CLIP		
F652	⚠ 9-906-459-01	BET 250V 5A		
	9-905-141-01	FUSE-CLIP		
		< IC >		
IC601	⚠ 9-906-452-01	IC MA4820		
IC651	9-906-453-01	IC EXB0111		
IC652	9-906-454-01	IC TA76431S		
		< COIL >		
L601	⚠ 9-906-461-01	LINE-FILTER		
L602	9-906-462-01	EMC-BEAD		
L603	9-906-462-01	EMC-BEAD		
L604	9-906-462-01	EMC-BEAD		
L605	9-901-560-01	FILTER		
L606	⚠ 9-906-465-01	LINE-FILTER		
L651	9-905-165-01	CHOKE-COIL		
L652	9-905-165-01	CHOKE-COIL		
L654	9-901-560-01	FILTER		
L655	9-901-560-01	FILTER		
L656	9-901-560-01	FILTER		
		< PHOTO CUPPLER >		
PC601	9-906-469-01	PHOTO CUPPLER		
PC602	9-906-469-01	PHOTO CUPPLER		
		< THERMISTOR >		
PTH601	⚠	POSISTOR		
		< TRANSISTOR >		
Q601	9-906-466-01	TRANSISTOR	2SC3246H	
Q654	9-906-298-01	TRANSISTOR	2SC2603E, F-TP	
Q655	9-906-298-01	TRANSISTOR	2SC2603E, F-TP	
		< RESISTOR >		
R601	⚠ 9-906-399-01	R-METAL	8.2M	
R602	⚠ 9-901-537-01	R-CEMENT	2.2	3W
R603	9-906-400-01	R-METAL	100K	3W
R604	9-906-401-01	R-CARBON	680K	1/2W
R605	9-906-402-01	R-METAL	100	1W
R606	9-906-403-01	R-METAL	0.22	3W
R607	9-906-404-01	R-CARBON	3.3	1/4W
R608	9-906-405-01	R-CARBON	1K	1/2W
R609	9-906-406-01	R-CARBON	910	1/4W
R610	9-906-225-01	R-CARBON	33K	1/4W
R611	9-906-193-01	R-CARBON	47K	1/4W
R612	9-906-183-01	R-CARBON	10K	1/4W
R613	9-906-410-01	R-CARBON	3.3K	1/4W
R614	9-906-400-01	R-METAL	100K	3W
R654	9-906-203-01	R-CARBON	22K	1/4W
R655	9-906-219-01	R-CARBON	1.5K	1/4W
R657	9-906-414-01	R-FUSING		
R658	9-906-415-01	R-CARBON	330	1/2W
R659	9-906-416-01	R-CARBON	16K	1/4W
R660	9-906-219-01	R-CARBON	1.5K	1/4W
R661	9-906-183-01	R-CARBON	10K	1/4W
R662	1-247-417-11	R-CARBON	1K	1/4W
R663	9-906-183-01	R-CARBON	10K	1/4W
R664	9-906-226-01	R-CARBON	4.7K	1/4W
R665	9-906-183-01	R-CARBON	10K	1/4W
R666	9-906-422-01	R-CARBON	820	1/4W
		< RELAY >		
RY601	⚠ 9-906-457-01	RELAY		
		< TRANSFORMER >		
T601	⚠ 9-906-456-01	SW TRANS (Y9327-8)		

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The components identified by shading and mark ⚠ are cirtical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description		Remark
		< VARIABLE REESISTOR >		
VR651	9-906-455-01	R-SEMX		
VR652	9-905-166-01	R-SEMX		
**********				
*	9-906-511-01	H BOARD, MOUNTED		
		**********		
		< CAPACITOR >		
C11	1-164-232-11	CHIP-C	0.1MF	50V
C12	9-906-376-01	CHIP-C	0.1MF	50V
C13	9-906-376-01	CHIP-C	0.1MF	50V
C14	9-906-378-01	CHIP-C	0.022MF	50V
C15	9-906-379-01	CHIP-C	220PF	50V
C16	9-906-379-01	CHIP-C	220PF	50V
C17	9-906-376-01	CHIP-C	0.1MF	25V
C18	1-164-232-11	CHIP-C	0.01MF	50V
		< CHIP JUMPER >		
CJ21	9-900-863-01	CHIP JUMPER	0	1/10W
CJ22	9-900-863-01	CHIP JUMPER	0	1/10W
CJ23	1-216-296-00	CHIP JUMPER	0	1/8W
CJ24	9-900-863-01	CHIP JUMPER	0	1/10W
CJ25	1-216-296-00	CHIP JUMPER	0	1/8W
		< FILTER >		
CF11	9-906-387-01	OSCILATOR		
		< DIODE >		
D11	8-719-000-08	DIODE	MC2838-T1	
D12	8-719-000-08	DIODE	MC2838-T1	
D13	8-719-000-08	DIODE	MC2838-T1	
D14	9-906-385-01	DIODE	SLR-331VCF01L	
D15	9-905-177-01	DIODE	SLR-331VCF01M	
		< IC >		
IC11	9-906-386-01	IC	μPD6600GS-565	
IC12	9-900-910-01	IC	GP1U561	
		< TRANSISTOR >		
Q11	9-906-382-01	TRANSISTOR	2SC3052E-T1	
Q12	9-906-383-01	TRANSISTOR	2SA1235E-T1	
Q14	9-906-383-01	TRANSISTOR	2SA1235E-T1	
		< RESISTOR >		
R11	9-900-865-01	CHIP-R	100	1/10W
R12	1-216-065-00	CHIP-R	4.7K	1/10W
R13	1-216-051-00	CHIP-R	1.2K	1/10W
R14	9-906-372-01	CHIP-R	100K	1/8W
R15	9-906-373-01	CHIP-R	2.2K	1/8W
R16	9-906-374-01	CHIP-R	1K	1/10W
R17	9-905-029-01	CHIP-R	2.7K	1/10W
R18	1-216-029-00	CHIP-R	150	1/10W
R19	1-216-089-00	CHIP-R	47K	1/10W
R20	9-906-375-01	CHIP-R	560	1/8W
		< SWITCH >		
SW11	9-906-388-01	SWITCH		
SW12	9-906-388-01	SWITCH		
SW13	9-906-388-01	SWITCH		
SW14	9-906-388-01	SWITCH		
SW15	9-906-388-01	SWITCH		
SW16	9-906-388-01	SWITCH		

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MISCELLANEOUS
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⚠ 1-451-265-11 D.Y
⚠ 8-737-151-05 CRT (A20JKU10X)
⚠ 9-901-523-01 F.B.T MSHIFPS152
⚠ 9-906-154-01 AC-INLET
9-906-157-01 SPEAKER

⚠ 9-906-158-01 DEGAUSS-COIL
9-906-159-01 COAXIAL CABLE
⚠ 9-906-332-01 TUNER BT-RG321

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ACCESSORIES & PACKING MATERIALS
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1-693-143-11 COMMANDER, REMORT (RM-827S)
*9-906-085-01 PACKING-PLATE-WW
*9-906-086-01 PACKING-CASE
*9-906-087-01 PACKING-BAG
*9-906-090-01 CUSHION

*9-906-091-01 CUSHION
9-906-104-01 MANUAL INSTRUCTION
9-906-108-01 ANTENNA-CONNECTOR
9-906-109-01 AC-ADAPTER

9-906-110-01 AC-CORD
9-906-122-01 ROD-ANT-WW
9-906-123-01 CAR-BATTERY-CORD
9-906-124-01 PAL-PLUG